—— Original Article ——

Indicators of Children's Social health: Developing a Conceptual Framework to Assess Equity

Kambiz Abachizadeh MD[1], Soheila Omidnia MA, MPH[2], Habibolah Masoudifarid MD[3], Alireza Tajlili MD, MPH[4]

Authors' affiliations: [1]Department of Health and Community Medicine, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran. [2]Health Deputy of Ministry of Health and Medical Education, Tehran, Iran. [3]Social Affairs Deputy, State Welfare Organization,Tehran ,Iran. [4]Youth and Adolescent Development Officer, UNICEF, Iran.
Corresponding author and reprints: Kambiz Abachizadeh. Faculty of Medicine (Department of Health and Community Medicine), Kudakyar Avenue, Daneshju Boulvard, Evin, Tehran, Iran.
E-mail: abachizade@gmail.com, k.abachizadeh@health.gov.ir
Accepted for publication: 5 July 2014

Abstract

 Background: Social health is important to be assessed as a dimension of health. In this study we tried to determine areas and sub-areas of children social health indicators.

 Methods: In a structured way, we reviewed the main social health databases and documents since 1995, both Iranian and international were reviewed to develop conceptual framework and to extract indicators.

 Results: According to reviewed documents, indicators of social health were categorized into four groups. In first category indicators are related to system capacities such as facilities and institutions, financial, and human resources. Social system functions are classified as group two. The main subcategories of social health functions are policy development and enforcement, social marketing, community organizing, coalition building and collaboration, education, case management, screening, surveillance, and investigation. In group three, named as social factors, the main determined areas are life skills, early child development, family functioning, and social networks. Indicators related to social outcomes are categorized as group four. The main related positive social outcomes are social wellbeing and happiness and the main negative outcomes are physical health outcome (injuries, infectious diseases, etc.), mental health outcomes, development and learning outcomes, risky behaviors, academic outcomes, and legal outcomes.

 Conclusion: Our recommended model develops a conceptual framework for child social health indicators. This framework and extracted indicators can be used to compare different populations to assess inequity for evidence based policy making and to implement proper interventions.

 Keywords: Social, Child, Indicator, Iran, Equity

Introduction

"Health" is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (1).

The theme of social health is controversial and it may seem less frequently discussed and studied than physical or mental health (2). However, in recent decades, social health is considered as a significant dimension of

health therefore assessment of social health is vital to plan health system interventions (3-6). New recommended models mark a shift away from a primarily health-focused reporting framework and they followed an ecological approach, where the importance of parents, families and the physical and social environment are well recognized as well as they organized into a framework around answering questions considered vital to assessing the social health and wellbeing of children (7-12). The key questions are:
• How well are we promoting healthy child development?
• How well are children learning and developing?
• What factors can affect children adversely?
• What kind of families and communities do children live in?
• How safe and secure are children?
• How well is the system performing in delivering quality health, development and wellbeing actions to children?
In Iran, the main focus to assess child health is on indicators of mortality, infectious and nutritional diseases and recently injuries but there is less attention to social indicators. According to our search, there was not any related study regarding to develop social health indicators of children in Iran. For this reason, our study was designed to develop a conceptual framework and subsequently to determine areas and subareas of child social health indicators.

Materials and Methods

This study in a structured approach assesses the main Iranian and other countries documents relevant to child social health indicators. The search strategy relied significantly on both a literature review and search of the World Wide Web. The major purpose of the literature search was to identify possible indicators of children social health and to develop a measurement framework that would assist the development of public policy and practice.
We start by breaking the review question down into sub-questions and consider the components of the question, as follows:
• Population: children aged 6-18 were the interested population
• Indicators: we focused on indicators related to social health, social wellbeing and welfare.
• Context: the context within which the indicators have been developed was considered
Inclusion criteria were used to ensure that relevant studies were reviewed. Studies were included if they met the following criteria: (a) subjects were in the 1st–12th grade; (b) published between 1995 and 2013; (c) focused on development of social indicators; (d) research reported in Persian or English. Published and unpublished studies were included in this review. The titles and abstracts of the studies were screened for potential correlates of child social health indicators.
Published Persian language papers of all types until 2013 were collected by using IranMedex (index of Iranian medical Journals; http://www.iranmedex.com) and Magiran (index of more than 1300 Iranian journals; http://www.magiran.com) databases using various combinations of the following terms (translated in Persian): social, community, indicator, child, adolescence, wellbeing, welfare and measures.
The major employed English search engines for the web were social science research network, PROQUEST, SCOPUS.
Furthermore, we focused on reports of international organizations such as WHO (World Health Organization), UNICEF (United Nations Children's Fund), and UNDP (United Nations Development Program).
Databases that contain reports of systematic reviews were reviewed and listed as below:
• The DARE database <http://www.york.ac.uk/inst/crd/crddataba ses.htm> contains abstracts of systematic reviews of the effects of healthcare and some social interventions.
• The Cochrane Database of Systematic Reviews contains full versions of systematic

reviews, covering a wide range of health care, and some social and public health interventions.

Sources of gray literature were reviewed including:

- Index to scientific and technical proceedings: is available through web of knowledge, and includes proceedings from many health-related conferences
- <http://www.isinet.com/products/litres/istp/>

Index to social sciences and humanities proceedings: Includes multidisciplinary coverage of conference proceedings, as well as reports, preprints, and monographs
<http://www.isinet.com/products/litres/isshp/>

Results

Regarding the reviewed documents and other major models to promote child social health, we developed a conceptual framework for Indicators of children's social health.

Following models were analyzed and to be employed in our recommended model:

1. Donabedian model (13)
2. World health organization definition for health systems (14)
3. Public health intervention wheel (15)
4. Social ecological model (16)
5. NHPS (Numerous Health & Prevention Services) framework for examining emotional and behavioral health in children
6. The Indicators of Social and Family Functioning Reference Instrument' (ISAFF-RI) model.

Recommended conceptual framework

After assessment and combining different models, we recommended our conceptual framework for indicators of Iranian children's social health. Figure 1 shows our model and table 1 display extracted areas and subareas. Extracted indicators for each area and sub area through review of literature have been displayed in table 2, 3, 4, and 5.

Figure 1- finalized recommended conceptual framework for Indicators of Iranian children's social health
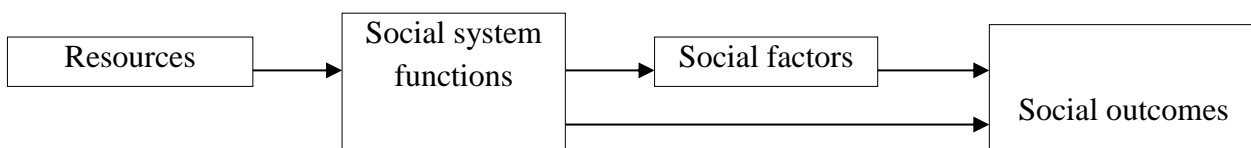
Table 1- Details of the finalized recommended conceptual framework for Indicators of Iranian children's social Health

Areas	Resources	Social system functions	Social factors	Social outcomes	
				Positive	Negative (social problems)
Subareas	-Facilities and institutions -Human resources -Financial resources -Information	-Policy development and enforcement -Social marketing -Community organizing -Coalition building and -Collaboration -Education -Case management -Screening -Surveillance -Investigation	-Life skills -Early child development -Family functioning -Social networks	-Social wellbeing -Happiness	-Physical health outcome (injuries, infections etc.) -Mental health outcomes -Development and -Learning outcomes -Risky behaviors -Academic outcome -Legal outcomes

Table 2- extracted indicators of the area of resources

Area	Subarea	Indicator
Resources	Financial	Child welfare budgets
	Human	Child social workers
	Facilities and institutions	Child care centers
		Recreational centers
		Structures for Support to Orphans and Vulnerable Children
		Health care centers
	Information	Evidence based programs to promote child social health

Table 3- Extracted indicators of the area of social system functions

Area	Subarea	Indicator
Social system functions	Policy development and enforcement	Laws for child support in country
	Social marketing	Social marketing campaigns
	Community organizing	Non-governmental organizations
	Coalition building and Collaboration	Joint programs among key stakeholders
	Education	Social and life skills education
	Case management	Quality of child social health service packages
	Screening	Screening programs for child social problems
	Surveillance	Surveillance system

		Investigation	Quality of researches related to child social health

Table 4- Extracted indicators of the area of social factors

Area	Subarea	Indicator
Social factors	Life skills	Self-awareness
		Self-management
		Social awareness
		Relationship skills
		Responsible decision-making
		Commitment to learning (such as Achievement motivation; School engagement; Bonding to school; Reading for pleasure)
		Positive value (helping other people; Honesty; Responsibility)
		Social competencies (such as Planning and decision making; Interpersonal competence; Cultural competence; Resistance skills; Peaceful conflict resolution)
		Positive identity (such as Self-esteem; Sense of purpose; Positive view of personal future)
		Constructive use of time (such as Creative activities; Youth programs; Religious community;
	Early child development	Transition to primary school
		Attending early childhood education programs and primary school
		Literacy and numeracy
		Social and emotional development during early child development
	Family functioning	Homelessness
		Children in "Out-of-Home" Care
		Parents with fair or poor health, disabilities, mental health problems
		Median annual income-all families with children
		Poverty rate-all families with children
		Secure parental employment rate
		Children in families headed by a single parent
		Children in families headed by parents
		Family life providers high levels of love and support
		Positive family communication
		Family boundaries
		Parent involvement in schooling
	Social networks	Neighborhood safety
		Social capital
		School relationships and bullying
		School boundaries
		Neighborhood boundaries
		Rate of children with health insurance coverage
		Social relationships domain
		Community engagement and educational attainment domains
		Other adults relationships
		Caring neighborhood
		Caring school climate

Table 5- Extracted indicators of the area of social outcomes (positive and negative outcomes)

Area	Subarea	Indicator
Social outcomes (positive)	Social wellbeing	Social wellbeing (children with very good or excellent heath)
	Happiness	Happiness
Social outcomes (negative)	Physical health outcome (injuries, …)	Low birth weight
	Mental health outcomes	Emotional/spiritual problems (such as Suicide rate)
		Child abuse and neglect
		Children as victims of violence
	Development and learning outcomes	Children with developmental problems or learning problems
	Risky behaviors	Teenage births
		Breastfeeding (Exclusive breastfeeding of infants
		Tobacco use
		Alcohol illicit drug abuse
		Smoking mothers during pregnancy
		Alcohol use during pregnancy
		Overweight and obesity
		Environmental tobacco smoke at home
	Academic outcomes	Productive activity/educational attainment domain
	Legal outcomes	Children and crime (Children under juvenile justice supervision)

Discussion

Our Study outlines a conceptual framework for indicators of child social health. 27 areas and 72 subareas were determined. Certainly the most important indicators of a system return to the indicators of system impact (17-22). Consequently, indicators related to child abuse, violence, developmental and learning problems, teenage birth, tobacco and substance abuse are the most significant determinants of child social health status.

It should be mentioned that from this pool of indicators, we have to select key indicators based on criterions such as comprehensiveness; being easily measurable, and specificity to use for system monitoring. To achieve this goal, we can employ recommendation of some pioneer organization specially internationals. For example, the Child Development Index of UNDP (United Nations Development Program) focuses on child education, child malnutrition state, poverty and inequity but WHO (World Health organization) emphasizes on mortality rates specially less than 1 and 5 mortality rate (23-25). To give another example, key national indicators of Australian and New Zeland children's health relies on social and emotional development, risky behaviors, family functioning and familial economic status, children in non-parental care, parental health status, neighborhood safety, social capital and other negative health impacts (26-27).

In recent years social reporting activities to monitor and systematically analyze the current state of and changes in social conditions have been given new priority. Identified indicators of our study can be used as an instrument to assess inequity of child social health. Furthermore, they have a main role to monitor system interventions to promote social health and to make evidence-based policy making.

References

1   World Health Organization, WHO definition of Health. Available from:

http://www.who.int/about/definition/en/print.html . Accessed January (12.19.2013).
2   McDowell I. Measuring Health: A Guide to Rating Scales and Questionnaires. 3rd ed. Oxford University Press, New York; 2006.
3   Abachizadeh K, Omidnia S, Memaryan N, Nasehi AA, Rasouli M, Nikfarjam A. Determining dimensions of Iranians' individual social health: A qualitative approach. Iranian J Publ Health, 2013; 42(Supple.1):88-92.
4   Pedersen D. Political violence, ethnic conflict, and contemporary wars: broad implications for health and social well-being. Soc Sci Med. 2002;55:175-90.
5   Estes RJ. The World Social Situation: Development Challenges at the Outset of a New Century. Soc Indic Res. 2010; 98(3): 363-402.
6   Figueras J, McKee M, editors. Health Systems, Health, Wealth and Societal Well-being: Assessing the case for investing in health systems. World Health Organization on behalf of the European Observatory on Health Systems and Policies. New York: Open jUniversity Press, McGraw-Hill Education;2012. http://www.euro.who.int/__data/assets/pdf_file/0007/164383/e96159.pdf. Accessed January (12.19.2013).
7   European Union Agency for Fundamental Rights. Developing indicators for the protection, respect and promotion of the rights of the child in the European Union. 2009.
8   Lippman, LH, Moore KA, McIntosh H. Positive indicators of well-being: A conceptual framework, measures, and methodological issues (Innocenti Research Center Working Paper 2009-021). Florence: UNICEF Innocenti Research Center, 2009.
9   Zill N, Ziv Y. Toward A Global Indicator of Early Child Development: Summary Report: The Well-Being of America's Children. Prepared for: UNICEF ECD UNIT, 2007.
10   U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Trends in the well-being of America's children and youth 1999. Washington, DC: U.S. Government Printing Office, 2000.
11   Grant makers health. Positive youth development: a pathway to healthy teens, issue brief No. 15, 2002.
12   Moore KA, Theokas C. Conceptualizing a monitoring system for indicators in middle childhood. Child Indicators Research.2008; 1, 109-128.
13   Frenk J. Bulletin of the World Health Organization: Obituary of Avedis Donabedian, 70 (12), 2000.
14   World Health Organization. The World health report 2000: health systems: improving performance, 2000.
15   Keller LO, Strohschein S, Lia-Hoagberg B et al: Population-based public health interventions: practice-based and evidence-supported, part I, Public Health Nurs, 2004; 21:459.
16   Bronfenbrenner, UW, Damon A, Lerner RM, ed. The ecology of developmental processes in Handbook of child psychology, Vol. 1: Theoretical models of human development (5th ed.). New York: John Wiley and Sons, Inc. 1998.
17   Van Lente E, Barry MM, Molcho M, et al. Measuring population mental health and social well-being. Int J Public Health. 2012; 57:421-30.
18   Rice J. Material consumption and social well-being within the periphery of the world economy: an ecological analysis of maternal mortality. Soc Sci Res. 2008;37:1292-309.
19   Weisbrot M, Baker D, Kraev E, Chen J. The score card on globalization 1980-2000: its consequences for economic and social well-being. Int J Health Serv. 2002;32:229-53.
20   Cooke M. The First Nations Community Well-Being Index (CWB): A Conceptual Review. Paper prepared for Aboriginal Affairs and Northern Development Canada (AANDC); 2005. Catalogue No. R2-400/2005E-PDF
21   Allin P. Measuring societal wellbeing, Economic & Labour Market Review. 2007; 1(10): 46-52.
22   Jany-Catrice F. The French regions and their social health. Soc Indic Res. 2009; 93(2): 377-391.
23   Ministry of Social Development. The Social Report. Wellington (New Zealand): Ministry of Social Development; 2001-2010. Available from: http://socialreport.msd.govt.nz/. Accessed January (12.13.2013).
24   Leading Community Health Indicators. Prepared by Public Sector Consultants Inc. Lansing, Michigan, 2003.
25   Manitoba health provincial health indicators, Prepared by Manitoba Health Indicator Working Group, 1999.
26   Australian government, Australian institute for

health and welfare. Key national indicators of children's health, Bulletin 58, 2008.

27 Compendium of OECD Well-Being Indicators; 2011. Available from: http://www.oecd.org/general/compendiumofo ecdwell-beingindicators.htm. Accessed January (12.17.2013).