Published in final edited form as:

Child Care Health Dev. 2007 March ; 33(2): 117–125. doi:10.1111/j.1365-2214.2006.00660.x.

Maternal Cultural Participation and Child Health Status in a Middle Eastern Context: Evidence from the Urban Health Study

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Abstract

Background—The negative effect of poverty on child health has been well established. However, rapid urbanization in developing countries prompts new research questions relating to socio-cultural practices and other related variables in these settings.

Objective—To examine the association between maternal cultural participation and child health status in impoverished neighbourhoods of Beirut, Lebanon.

Methods—A cross-sectional survey of 1,241 mothers with children under 5 years was conducted from randomly selected households in three impoverished neighbourhoods of diverse ethnic and religious make-up. The outcome variable was child health status (good/bad) as assessed by the mother. Maternal variables, including cultural participation, education, demographic, and environmental/structural factors were studied. Descriptive statistics and bivariate associations were provided using Pearson's χ^2 tests. Unadjusted and adjusted odds ratios were then obtained from binary logistic regression models.

Results—Two indicators of maternal cultural participation, namely watching entertaining television and attending movies/art exhibitions, were found to be significantly associated to child health status after controlling for other risk factors. The quality of water, the quality of local health services, and maternal education were also significantly associated with child health status. Household income, child gender, and household dampness had no significant association with child health status in this context.

Conclusion—Maternal cultural participation was a significant predictor of child health status in impoverished urban communities. Improving child health through culturally focused interventions for mothers, especially in deprived areas, may be great.

Keywords

Child health; cultural capital; urbanization; poverty; health services; Lebanon

INTRODUCTION

Poverty and maternal depression are often examined independently as factors that negatively affect child health and development. Poverty has been clearly linked to poor child health (Wagstaff et al. 2004 ; Spencer 1996) higher rates of asthma,(Litonjua et al. 1999) diarrhoea and malnutrition, (Blakely et al. 2005) and child mortality (Hertz et al. 1994). At the same time, maternal depression in both affluent and less affluent families has been linked to poor cognitive development and behavioural problems among children, (Civic & Holt 2000 ;

Luoma et al. 2001) poorer reported child health status, (Casey et al. 2004) child nutritional status, (Harpham et al. 2005) and unfavourable maternal health-care seeking behaviour (Minkovitz et al. 2005). Impoverished children face compounded health risks because they are directly harmed by structural and environmental factors and also indirectly, since maternal depression has been linked to socioeconomic deprivation (Mulvaney & Kendrick 2005; Patel & Kleinman 2003). In developing countries characterized by patriarchy, other variables relating to limited maternal autonomy may also be associated with poor child health and nutritional status (Doan & Bisharat 1990; Heaton et al. 2005).

Rapid urbanization in developing countries may produce new child health problems relating to the development of urban slums, (UN HABITAT 2005) social fragmentations, and to cultural and traditional norms in these societies. Since many developing countries are characterized by a restriction of women's autonomy, legal rights, and scope of action, which may have an effect on child health, we decided to examine the recreational activities of mothers living in poor urban environments in relation to child health.

Our cross-sectional study of three neighbourhoods outside Beirut, Lebanon, contributes to the discussion on children's health in poor urban communities by introducing a new variable that has not been previously examined: maternal cultural involvement. Cultural involvement, whether it was attending musical or art events, watching television or going to the movies, has been shown to have positive health effects for the person participating in these activities (Bygren et al. 1996; Johansson et al. 2001). Our study builds on this literature by examining how the cultural involvement of one person, the mother, can be associated with her child's health. Following Bourdieu, we conceptualize cultural involvements and 'aesthetic practices' in terms of cultural capital (Bourdieu 1984). We conceive of cultural capital not in terms of national norms, values, language and traditions but as the production or consumption of aesthetics – visual and performing art, music, and literature. To Bourdieu, these 'aesthetic practices' are fundamentally 'cultivated' by women and men, translating into assets (capital) that can have significant consequences on their life-chances in the market and beyond (Bourdieu 1985). In addition to being treated as other forms of capital (e.g. social or economic), however, cultural assets also have significant 'symbolic' values that serve to differentiate the classes on the bases of aesthetic tastes and knowledge, reinforcing class boundaries and offering the cultural elite an alternative (or otherwise additional) set of goods for which to compete for 'distinction' (Bourdieu 1984). Our main hypothesis is that cultural 'goods' and practices (i.e., cultural capital) have significant health consequences much like wealth, economic capital or social capital.

To explore the merit of this hypothesis, our study adjusts for other traditional variables including water and housing quality, household structure, income, social capital, quality of local health services, length of stay in the area, child gender, maternal self-assessed health and life-satisfaction, maternal age and education.

METHODS

Setting

The data used for this study were from a recently completed population-based survey (2002–03) of three poor communities in Greater Beirut, Lebanon. The communities – Hay el-Sollom, Naba'a, and Burj el-Barajneh refugee camp – were chosen purposefully on practical and substantive grounds including overall poverty conditions, lack of infrastructure, presence of rural immigrants or displaced populations, ease of sampling, and proximity to Beirut proper. Although the three communities shared common socio-economic features such as economic hardship and low income, they differed in their ethnic and religious make-up. While Naba'a and Hay el-Sollom housed a predominantly Lebanese population, Burj el-

Barajneh consisted primarily of Palestinian refugees. As for religious affiliations, Naba'a was 80% Christian, and almost all of Hay el-Sollom and Burj el-Barajneh's inhabitants were Muslims. Of the three communities, Burj el-Barajneh refugee camp was the most disadvantaged in terms of family income and other socioeconomic indicators, owing to a long standing policy of exclusion from the public-sector services and the formal labour market. However, the United Nations Relief Works Agency for Palestinian Refugees (UNRWA) and other national and international nongovernmental organizations (NGOs) provided services including education and health care to Palestinian refugees.

Sample and data

This study was part of a larger research initiative on urban health that utilized a cross-sectional survey of 2,797 households selected randomly from a detailed sampling frame constructed specifically for this study. The sampling frame was constructed in two stages. In the first stage, a quick count of all housing units in the three communities was undertaken using area maps. The areas were then divided into sampling segments (PSUs) of approximately 100 housing units each. At this stage, sketch maps were prepared for all PSUs, indicating boundaries, buildings and streets as well as an estimate of population size. Finally, a sample of PSUs was selected from each community, with a probability proportional to estimated population size for complete household listings. In the second stage, a sample of households was drawn systematically from the household lists of the selected PSUs in each community.

The instrument consisted of two questionnaires: one for the household and one for ever-married women aged 15–59 at the time of the survey. The household questionnaire was completed by face-to-face interviews with a proxy respondent in the spring of 2002, and the questionnaire for ever-married women was completed in 2003 through interviews with the women in the sampled households. The data pertaining to child health were obtained from the women's questionnaire by examining the responses of mothers of children under-5 years old. The overall response rates were 88.3% and 77.8% for the household and women questionnaires, respectively. Our original sample of women was reduced substantially to include only mothers of 1,241 children below 5 years at the time of the survey.

Dependent Variable

Our dependent variable was child health status as perceived by the mother. Perceived child health was measured by a direct question: "how would you assess his/her health: very good, good, bad, very bad." For the analysis, the answers were dichotomized into good (very good or good health) and bad (bad or very bad health). Maternal reporting of child health was a standard way of collecting child health data, especially for young children who were unable to respond to questionnaires themselves. Using maternal perception rather than medical evaluations, allows for a broad assessment closer to the WHO definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (Spencer 1996). Maternal recall of acute health care events was studied and found to be consistent with medical records (D'Souza-Vazirani 2005). However, another study found poor agreement between maternal reporting of childhood chronic illness to that of medical records (Miller et al. 2001) and therefore we must be cautious of the methodological limitations and misclassification when using maternal reporting. Maternal assessment of child health was considered important regardless of medical exams, because of its implications for the utilization of health care services.

Independent Variables

The main independent variables were indicators of maternal cultural participation. Other characteristics of the mothers including health and socioeconomic status as well as structural and environmental conditions of the household/neighbourhood were included.

Maternal-related Variables

Four indicators were used to measure cultural participation: exposure to entertainment TV programs, exposure to cultural/political TV programs, art production, and art consumption. For watching TV programs, we asked mothers how many times per month they watched any of the following types of programs: 1) drama or comedy 2) singing or dancing shows 3) folklore 4) news or political debates. Answers to each of these items were coded as everyday, several times per week, several times per month, rarely, and not once. We combined the TV programs according to their theme, owing to the low frequencies on some of the items. Drama, comedy, singing and dancing shows were recoded as entertainment TV programs, and folklore programs along with the news or political debates were recoded as political/cultural TV programs.

Participation in art production was constructed by combining the respondent's replies to whether or not she 1) played a musical instrument, 2) participated in a singing show, play, or dance, 3) volunteered in cultural or artistic organization, and 4) made art objects or crafts like sculpture, paintings, etc... Answering "yes" to any of these activities indicates that the respondent was involved in doing artistic work, i.e. being a producer of art. The consumption of art was measured by asking the respondents whether or not they go to movies or attend art exhibitions, regardless of type of exhibition or movie. Our measurement strategy of cultural participation is quite similar to that used in previous research investigating the impact of cultural participation on various health outcomes among Swedish adults (Bygren et al. 1996; Johansson et al. 2001).

Maternal self-perceived health status was examined through two questions. The first asked whether the mother perceives her own health in general as very good, good, fair, bad, or very bad. The answer categories were combined into good (very good, good or fair) or bad (bad or very bad). The second addressed maternal life satisfaction, and asked whether she considers herself in general to be happy in life or not.

The socioeconomic level of the mother was measured by her educational level and income. The mother's education was recoded as "none", "elementary", and "intermediate or more" educational level. For household income, we included both the actual household income (in 1000 Lebanese Pounds where \$1= 1500 Lebanese pounds) and whether the household received any kind of welfare/governmental subsidies. The actual monetary family income was categorized as "lowest to 6000" and "6001 to highest." Then, those in the low income category were subdivided as having "low income" and "low income on welfare".

Engagement in civil society groups was used as an indicator of social capital. Due to the low number of individuals engaged in civil society organizations, 47 in total, the variable was recoded by combining the replies of the respondents to whether or not they were members of, social group (youth, elderly..), non-governmental or neighbourhood organization, cooperative or union, cultural group (dance, music, art), and other groups.

Demographic variables included age of the mother which was recoded, for analytic purposes, as "15–29" and "30–44" years. Other demographic variables included the sex of the child, household structure (female or male headed), and the length of stay in the area (0–4yrs or 5+) to capture effects of migration or resettlement.

Environmental and Contextual Variables

The environmental variables examined included quality of water and housing. Quality of water was measured by asking respondents whether or not they perceived the quality of potable and domestic water that they use as turbid or clear. Quality of housing was measured by two items relating to humidity and lightning. The respondents were asked whether they had poor lighting in the living and bedrooms (yes/no), and whether they experienced high humidity at home (yes/no). In the analysis, these two questions were combined into one variable, indicating housing quality.

Two contextual variables were used: perceived quality of local health services and community of residence. Respondents were asked whether they perceive the local health services as good or bad. A subjective assessment of the quality of local health services was used instead of objective measures, because negative perception of services might deter mothers from utilizing local services for prevention and treatment. Finally, community of residence was used to index the structural contexts associated with children and mothers, particularly the 'social exclusion' characterizing the camp.

Analysis

Stata 8.0 for MS Windows (Stata corporation 2003) was used in the analysis, with a minimum level of statistical significance set at 0.05. Univariate descriptive statistics for the variables included in our sample were first calculated followed by bivariate analysis using χ^2 tests to examine the association between perceived child health and all independent variables. Odds ratios and associated 95% confidence levels were calculated from logistic regressions for the association between perceived child health and each independent variable. The regression analysis was conducted to determine the strength of the association between the various covariates and the mothers' perception of child health. For our multiple logistic regression models, we included only the variables that showed significant bivariate associations with the outcome variable.

RESULTS

Table 1 presents the characteristics of the sample and univariate descriptive statistics for the study variables. Among the 1241 children, 1068 were in good health and 173 in bad health with 15 of these in very bad health. The children were evenly distributed by gender, 49.5% female and 50.5% males.

The vast majority of the respondents reported watching cultural/political TV programs and entertainment TV programs. However, only a small proportion reported doing/participating in an artistic activity or going to the movies/exhibitions. Likewise, only 3.5% of the sample was engaged in civil society groups.

Education and income were generally low. The majority reported completing elementary levels (46%) or no education (19.8), and over half reported having low yearly income (less than 6 million L.L., 1,500 L.L.=1 \$). Of the total, 7.3% were on welfare. Demographically, mothers were generally young. The household heads were mainly males. Most of the mothers (79.2%) have stayed in their area of residence for at least five years. Almost a fifth of mothers reported being in poor health, and about 13% noted low level of life satisfaction.

In terms of the environmental variables, the majority of mothers reported turbid water, humidity or poor lighting at home. However, only about a fifth of them considered the quality of the local health services as bad. Geographically, the sample was distributed proportionally to population size of communities.

The bivariate associations between the independent variables mothers' perceived health of their children were mixed. Three of the cultural participation variables and the measure of social capital were significantly associated with perceived child health status. Education, household income, mothers' perceived health status, life satisfaction, quality of water, humidity/poor lighting in the house, and quality of local health services were also significantly associated with child health status. Production of art, demographic factors, and community of residence were not associated with perceived child health status.

The regression results included only variables which had statistically significant associations with the outcome variable (Table 2). Unadjusted odds ratios for the cultural participation variables showed strong associations with the outcome variable. Mothers who did not watch entertainment TV programs were 2.22 times more likely to report children's poor health than mothers who watch these programs. The odds ratios for watching cultural/ political TV programs and going to the movies and exhibitions were even larger at, respectively 2.39 and 3.05. These unadjusted odds ratios were among the highest reported among all the independent variables included in the regression model.

Two of the cultural participation variables remained strong and statistically significant after adjusting for relevant socioeconomic status, psychosocial, and environment/community factors. Mothers who did not watch entertainment TV programs and those who did go to the movies/exhibitions were, respectively, 2.08 ($p=0.007$) and 2.77 (0.043) times more likely to report poor child health status after adjusting for other covariates. Poor perceived child health status was also strongly associated with environment and community variables including the quality of potable and domestic water ($OR=1.67$, $p=0.005$) and quality of local health services ($OR=2.51$, $p=0.000$). There were no significant associations between perceived poor child health and maternal education, household income, mother's perceived health, life satisfaction, or household environmental conditions (humidity/poor lighting).

DISCUSSION

Previous studies from Western countries have shown that cultural participation, particularly going to exhibitions and movies, had positive health outcomes including longevity (Bygren et al. 1996) and general health (Johansson et al. 2001). On the other hand, some research on watching television has highlighted the negative effects on health ranging from obesity (Reilly et al. 2005) to Alzheimer's (Lindstrom et al. 2005). To our knowledge, our study was the first to focus specifically on maternal cultural participation and its association with child health status in a setting from different from previous studies. Our findings, based on a community based survey, clearly demonstrated that good child health status was associated with maternal cultural involvement.

Although primarily focusing on maternal cultural participation, this study also demonstrated the importance of other maternal, household and neighbourhood variables to child health status. Inadequate sanitation and water, poor housing, and deficient health facilities characterize many impoverished urban settings in developing countries and adversely affect the health of children (Kaufmann & Cleland 1994). In our study the quality of household water, whether it was turbid or not, was found to be associated to child health. Unlike other studies (Sheppard et al. 2004), household humidity and poor lighting was not significantly associated to child health. The quality of health services was found to be strongly associated to child health. Since maternal perception, rather than absolute quality was measured in our study, we must be cautious of biases. Maternal health-seeking behaviour, however, might be linked to her perception, justified or not, that the available services were inadequate and therefore might have directly affected child health.

Contrary to expectations, socioeconomic status variables were not significant in our study. Maternal education was of borderline significance when comparing mothers of intermediate or college education to those without any education. However, a gradient was apparent as shown in Table 2. Previous research has indicated a strong association between maternal education and child health (Heaton et al. 2005). Yes, none had controlled for cultural involvement of mothers, which might have captured the effect of education. Likewise, there was a lack of significant association between income and child health status in these three overwhelmingly poor neighbourhoods. This might be due to the overall homogeneous economic standing of the three communities, as the variance in income was not large. In fact, the three communities fell in the lowest income bracket when measured on a national scale. And, in spite of the social exclusion and associated low income levels in Burj el-Barajneh camp, the most impoverished of the three neighbourhoods, child health was known to be similar or even better than that of the host populations (Khawaja 2004). For, several international NGOs, including the United Nations Relief and Works Agency, had primary health clinics that provided free consultations and care to the Palestinian refugees, buffering the negative effects of poverty and social exclusion on health.

Demographic variables including the mother's age, gender of child, household structure, and length of stay in the area were not significantly associated with child health status.

The relative importance of maternal cultural participation as compared to conventional demographic, socioeconomic and environmental factors calls for explanation. Certainly, our study was cross-sectional in design, so we can only ascertain associations and not causations. Here, we consider possible pathways linking maternal cultural participation to child health that can be investigated in greater detail in the future. We will discuss four possible mechanisms that link cultural participation to health status: 1) cultural partaking may make women more self-confident, better problem solvers and better care providers 2) cultural participation may have a health promotion effect because of exposure to television or movies, 3) cultural participation buffers against maternal depression and the consequent effects on child health, 4) cultural participation may be a proxy for autonomy, particularly mobility, and may indirectly be associated with good child health. Although we will discuss each possible pathway separately, it is unlikely that one single pathway, independent of the others, was responsible for the association between maternal cultural involvement and good child health; rather there was probably a cumulative effect of two or more factors.

Watching entertainment programs on television, and going to movies and art exhibitions may allow women in conservative patriarchal societies to be exposed to more autonomous female models and various situations and dilemmas despite their relative confinement to the home. These cultural practices are part of a complex and multidimensional construct referred to in the social science literature as 'cultural capital'. Pierre Bourdieu referred to cultural capital as consisting of distinguishing tastes and practices acquired or accumulated differently by people over the course of their life much as economic capital (Bourdieu 1984; Bourdieu 1985). People who accumulate cultural assets are capable of generating "relations of distinction which are instituted as social or status hierarchies" (Fyfe 2004). We hypothesized that mothers with high cultural capital were socially more 'competent', and capable in terms of negotiation and communication, than others, enabling them to transform this cultural capital into tangible health benefits for their families.

Within the literature on maternal education and child health, one account for the association was that education gave women self-esteem, making them better service-users, and enhancing their ability to communicate effectively with health workers (Checkley et al. 2004). Similarly, negotiating and problem-solving skills might have been reinforced vicariously through cultural involvement, and cultural capital might have provided mothers

with self-efficacy, making them better health service-users when their children were sick. Low-income women often held the perception that physicians did not always listen to them (Kilpelainen et al. 2001) and maternal cultural capital might have improved communication. Since communication between physician and patient was especially important in increasing compliance (Winnick et al. 2005), child health might have been enhanced both because physicians better understood the complaints presented by mothers and because mothers might have followed instructions more closely.

A second pathway linking cultural involvement and child health draws on literature on media and health information dissemination. The women in our study might have been able to extract health related information from the content of the entertaining television programs they watched or from advertisements aired during breaks. Iranian students identified television as their most important source of information on HIV/AIDS (Tavoosi et al. 2004) and similarly in Iraq the two most important sources among workers on tuberculosis, were physicians and television (Hashim et al. 2003). Women's health concerns were often highlighted in soap operas (Thompson et al. 2000) and doctor-patient interactions were commonly depicted on television and movies. Information conveyed through advertisements of hygiene products such as soaps and toothpaste, medication, and foods may also play a role in educating mothers, exposing them to a variety of products, and allowing them to make informed decisions on child-rearing.

Drawing on literature on maternal depression and child-health we identified a third pathway: that cultural participation buffers against maternal depression and its negative associations to child health. Our questionnaire can not confirm this mechanism since self-reported maternal life-satisfaction is an inadequate proxy for maternal depression, but future research may be valuable. The mediating effect of maternal depression has been previously explored as a pathway linking poverty and child development (Pettersson & Albers 2001). In our study the maternal life-satisfaction variable was significantly associated to child health, as perceived by the mother, when no adjustments were made. After adjusting for other variables including cultural participation, it was no longer significant. Cultural participation and maternal-life satisfaction were highly correlated, which might have affected the regression results.

A final possible explanation for the association between cultural participation and improved child-health is that cultural participation is a proxy for autonomy and couple's communication. Since there were no movie theatres or exhibition centres in the urban neighbourhoods of our study, women going to movies must have been able to leave their neighbourhood with their husband or with their husband's permission. In a cross-national study, couple communication and maternal decision-making was associated with lower child mortality and stunting (Heaton et al. 2005). Female autonomy has also been shown to be significantly linked to child nutritional status in Jordan (Doan & Bisharat 1990) and may be particularly important in Arab and other developing countries' contexts characterized by patriarchy.

Since this is a cross-sectional study associations can only be determined; however the direction of the relationships remain unclear. The concept of cultural capital, like social capital, is probably structured by social class (as indexed by income) or other socioeconomic indicators, and its association with reported child health status may be a reflection of these structural variables. Given the nature of the data at hand, we cannot possibly explore the temporal pathways by which social class or education leads to better perceived child health through cultural participation. This task requires the utilization of over-time data and a hierarchical modeling procedure (Victora et al 1997). Also, the concept of cultural capital and cultural participation more generally is rather abstract and a few indicators cannot

possibly capture its richness. In the field of education where the concept has generated considerable empirical research, analysts continue to debate how best to measure the concept (Swartz 2003).

Some other limitations of this study arise because the questionnaire did not fully address certain topics, such as obesity, time spent by children watching television, and direct measures of maternal depression, which in retrospect might have been useful variables. Mothers, especially of low socioeconomic or educational levels, often do not perceive their children as overweight or obese (Baughcum et al. 2000; Jain et al. 2001) and may not consider this factor when reporting child health status. In Beirut there was a high prevalence of overweight 6–8 years old children (For girls: 25% overweight and 6 % obese; for boys: 26% overweight and 7 % obese), (Jabre et al. 2005) which might be associated to television watching of both mothers and children.

This study examined child health status in an impoverished urban context of a developing Arab country, and introduced a new variable, cultural participation, which might be particularly valuable in communities that are characterized by patriarchy. The implications for improving child health through culturally focused interventions for mothers, especially in deprived areas, maybe great and warrant further research using longitudinal or experimental research designs.

Acknowledgments

This study was part of a larger multi-disciplinary research project on urban health sponsored by the Center for Research on Population and Health at the American University of Beirut, and supported by grants from the Wellcome Trust, the Mellon Foundation and the Ford Foundation.

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Table 1

Characteristics of survey sample, mothers of children aged 0–5 years, Urban Health Study, 2003

Variable	N (%)	% Reporting poor perceived general health of child
Cultural Capital		
Watch Entertainment TV Programs		
Yes	1133 (91.3)	13.0
No	108 (8.7)	24.1
Watch Cultural/Political TV Programs		
Yes	1175 (94.7)	13.3
No	66 (5.3)	25.8
Participate in Artistic Activity		
Yes	76 (6.1)	13.2
No	1165 (93.9)	14.0
Go to the Movies/Exhibitions		
Yes	90 (7.3)	5.6
No	1151 (92.7)	14.6
Social Capital		
Engagement in Civil Society Groups		
Yes	43 (3.5)	7.0
No	1198 (96.5)	14.2
Socioeconomic Status		
Education of Mother		
Intermediate or more	424 (34.2)	11.8
Elementary	571 (46.0)	14.2
Below elementary	246 (19.8)	17.1
Household Income		
High	593 (47.8)	12.3
Low -- not on Welfare	557 (44.9)	14.4
Low -- on Welfare	91 (7.3)	22.0
Demographics		
Age of Mother		
30–59	723 (58.3)	13.0
15–29	518 (41.7)	15.3
Sex of Child		
Female	614 (49.5)	12.5
Male	627 (50.5)	15.3
Household Structure		
Male Headed	1214 (97.8)	13.8
Female Headed	27 (2.2)	18.5
Length of Stay in the Area		
5+ years	983 (79.2)	13.0
0–4 years	258 (20.8)	17.4

Variable	N (%)	% Reporting poor perceived general health of child
Psychosocial health		
Mother's Perceived Health		
Good	1027 (82.8)	12.3
Poor	214 (17.2)	22.0
Life Satisfaction		
Yes	1075 (86.6)	12.2
No	166 (13.4)	25.3
Environment/Community		
Quality of Water (Potable & Domestic)		
Clear	575 (46.3)	9.9
Turbid	666 (53.7)	17.4
Humidity / Poor Lighting		
No	284 (22.9)	9.9
Yes	957 (77.1)	15.2
Quality of Local Health Services		
Good	968 (78.0)	10.9
Bad	273 (22.0)	24.5
Community		
Naba'a	298 (24.0)	12.1
Hay Sellom	458 (36.9)	13.8
Burj el-Barajneh	485 (39.1)	15.3
Total	1241 (100.0)	14.2

Table 2

Unadjusted and adjusted odds ratios for perceived child health, Urban Health Study, 2003

Independent Variables	Perceived Child Health Unadjusted		Perceived Child Health Adjusted	
	Odds Ratios (95% CI)	p-value	Odds Ratios (95% CI)	p-value
Cultural Capital				
Watch Entertainment TV Programs				
Yes	1.00		1.00	
No	2.22 (1.37 – 3.60)	0.001	2.08 (1.22 – 3.56)	0.007
Watch Cultural/Political TV Programs				
Yes	1.00		1.00	
No	2.39 (1.33 – 4.31)	0.004	1.69 (0.86 – 3.34)	0.130
Go to the Movies/Exhibitions				
Yes	1.00		1.00	
No	3.05 (1.20 – 7.70)	0.019	2.77 (1.03 – 7.44)	0.043
Socioeconomic Status				
Education of Mother				
Intermediate or more	1.00		1.00	
Elementary	1.26 (0.86 – 1.86)	0.232	1.18 (0.78 – 1.78)	0.434
Below elementary	1.63 (1.03 – 2.56)	0.035	1.62 (0.99 – 2.65)	0.054
Household Income				
High	1.00		1.00	
Low – not on Welfare	1.19 (0.84 – 1.68)	0.328	0.96 (0.67 – 1.39)	0.789
Low – on Welfare	1.95 (1.11 – 3.41)	0.019	1.48 (0.81 – 2.68)	0.198
Psychosocial health				
Mother's Perceived Health				
Good	1.00		1.00	
Poor	1.93 (1.32 – 2.82)	0.001	1.31 (0.85 – 2.01)	0.224
Life Satisfaction				
Yes	1.00		1.00	
No	2.23 (1.50 – 3.34)	0.000	1.50 (0.96 – 2.34)	0.074
Environment/Community				
Quality of Water (Potable & Domestic)				

Independent Variables	Perceived Child Health Unadjusted		Perceived Child Health Adjusted	
	Odds Ratios (95% CI)	p-value	Odds Ratios (95% CI)	p-value
Clear	1.00		1.00	
Turbid	1.93 (1.37 – 2.73)	0.000	1.67 (1.17 – 2.39)	0.005
Humidity/Poor Lighting				
No	1.00		1.00	
Yes	1.80 (1.17 – 2.79)	0.008	1.41 (0.90 – 2.20)	0.136
Quality of Local Health Services				
Good	1.00		1.00	
Bad	2.63 (1.85 – 3.72)	0.000	2.51 (1.73 – 3.64)	0.000