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**Civic Engagement, Gender and Morbidity in Poor Communities:  
Evidence from Jordan's Refugee Camps**

**Marwan Khawaja, Mylene Tewtel-Salem, Maya Obeid**

Center for Research on Population and Health

American University of Beirut

Beirut, Lebanon

**New York Office:** 3 Dag Hammarskjold Plaza, 8th Floor

New York, NY 10017-2303

Tel: +961 1 35 00 00 ext. 4668

Fax: +961 1 74 44 70

**Correspondence to:** Dr Khawaja (mk36@aub.edu.lb)

## **Abstract**

This paper examines the association between civic engagement and self-rated health among a sample of adults living in refugee camps in Jordan. The analyses are based on a cross-sectional sample of all households residing in Palestinian refugee camps in Jordan, and interviewed in the spring and summer of 1999. The outcome variable is self-rated health. Associations between civic engagement and self-rated health were assessed using  $\chi^2$  tests and logistic regression. Findings from a logistic regression model showed that civic engagement as measured primarily by membership in clubs and associations has a significant impact on morbidity net of the effects of demographic, human capital and health risk factors. The final model showed that the effects of control variables used are in the anticipated direction, with age, marital status, health risk, education and poverty are statistically significant. However, the findings pertaining to social capital held for men but not women. We conclude that civic engagement was a powerful and significant predictor of morbidity among refugee men living in poor communities, but not for women. Low literacy and persisting patriarchy may account for the weak impact of social capital on health status among women in this context.

**Keywords:** civic engagement; social capital; morbidity; self-rated health; refugees; Jordan

**Word Count:**

## ***Introduction***

Over the past decade, social capital has started to get on the public health agenda worldwide. A main reason for its appeal from a public health perspective, is increasing evidence that social capital plays a pivotal role in the health and well being of individual and communities. There are various investigations demonstrating a link between social capital and health-related outcomes, including overall and cause-specific mortality (Kawachi, Kennedy, Lochner & Prothrow-Stith, 1997; Lochner, Kawachi, Brennan & Buka, 2003; and Skrabski, Kopp & Kawachi, 2003), morbidity or self-rated general health (Ellaway & Macintyre, 2000; Kawachi, Kennedy & Glass, 1999; and Grundy & Slogget, 2003), violent and juvenile crime (Sampson, 1997; Galea, Karpati & Kennedy, 2002; and Kennedy, Kawachi, Prothrow-Stith, 1998), drug abuse (Lovell, 2002), insecurity (Lindstrom, 2003), Smoking (Lindstrom, 2003), developmental health (Keating, 2000), physical activity (Ashton & Alvarez-Dardet, 2003; and Lindstrom, Moghaddassi, & Merlo, 2003), Sexual health (Holtgrave & Crosby, 2003), mental health (McKenzie, Whitley & Weich, 2002), and access to health services (Aye, Champagne & Contandriopoulos, 2002; and Hendryx, Ahern, Lovrich & McCurdy, 2002). However, available studies have been largely based on secondary, aggregate data from western societies. Despite growing research in this area, no study has attempted to examine the influence of social capital on health status of men and women separately in the Arab context.

This study examines the association between an important 'ingredient' of social capital, civic engagement, and morbidity among the Palestinian refugee population in Jordan, using unique household survey micro data. The data set is unique in that it includes a wide range of demographic, health and socio-economic items on a population-based, representative sample of Palestinian camp-refugees in Jordan. The focus of the analysis was on the influence

of civic engagement on self-rated health among randomly selected adults aged 15 years and over, living in impoverished refugee camps. Two main questions were addressed: (1) what is the impact of civic engagement measured by group membership on overall morbidity, net of other common risk factors?; and (2) does the association between civic engagement and morbidity differ by gender?

## ***Data and Methods***

### **Data**

Our source of data is the recently completed survey of living conditions in Jordan's camps, carried out jointly by the Oslo-based Fafo Institute for Applied Social Science and Yarmouk University in Jordan.<sup>1</sup> This is a cross-sectional survey of about 3100 households selected randomly from 12 refugee camps, with over-sampling in two of the camps to allow for further in-depth analysis. Households were selected from a detailed sampling frame provided by the Jordan Department of Statistics (DOS). The frame was based on the 1994 census data and updated for this survey using detailed maps available at the Department of Palestinian Affairs (DPA). The instrument consisted of three questionnaires: one for the household, one for a randomly selected adult aged at least 15 years from each household, and the third for all ever-married women aged 15 and over at the time of the survey. The data pertaining to health status were obtained from randomly selected adults (adult questionnaire) by face-face interviews carried out by local staff, specifically trained for this study. Fafo, in collaboration with Yarmouk University, supervised fieldwork, which took place in the spring and summer of 1999. A total of 2,590 households were successfully interviewed, with an overall response

rate of 95 percent. Details of methodology, including sampling design and implementation were provided in Khawaja & Tiltnes (2003).

## Measures

The outcome variable was general morbidity, measured by a direct, and widely used, question on self-rated health: “Would you say that in general your health is very good, good, fair, bad, or very bad. This item was coded into a dichotomous measure (1=fair, bad, or very bad; 0=very good, or good) (Kawachi et al, 1999).

Our thesis is that civic engagement exerts an independent impact on overall morbidity, net of demographic, health and socioeconomic factors. Hence, the main independent variable was civic engagement, a fundamental component of social capital. Given the multidimensionality of this variable, we used three indicators to tap it: membership in clubs and civic associations, newspaper reading (yesterday), and TV news watching during the past week. Membership was measured by asking: “Are you a member of a club or an association such as youth, women, social, sport, or cultural ones?” Answers to each of these three items were dichotomous (yes/no).

Demographic and socio-economic control variables included age (15-24, 25-39, 40-64, 65+), marital status (single, married, and previously married), education completed (less than basic, basic education, secondary or more), labor force participation (in labor force, out of the labor force), and family income (low income, high income). The cutoff point for low income was the lowest 20<sup>th</sup> percentile of household yearly income, making it a measure of economic hardship or otherwise poverty. In addition, two health-related control variables were used: health checkup within the past six months and current smoking status (yes/no).

## Analysis

We applied sampling weights to adjust for oversampling and non-response. Once weighted, the data reported here reflect the camp population in Jordan during the period of data collection. Failure to use sampling weights in a survey like this one may lead to serious biases in the estimates.

Univariate descriptive statistics for the variables included in our sample were first calculated, followed by bivariate analysis to examine the association between morbidity and all the variables included in the analysis. We then used binomial logistic regression models, for men and women separately, to describe association between morbidity and civic engagements controlling for relevant demographic, socio-economic and health-risk factors. Preliminary examination of the data indicated a strong interaction between gender and civic engagement, in which case sex-specific models were preferred. The strategy followed was to fit a model containing only civic engagement variables, and then to add relevant control variables in an inclusive model.

## ***Findings***

Table 1 shows the demographic and social characteristics of the sample and the percentages of subjects reporting fair or poor health. Our weighted sample consisted of 1615 individuals (50.1% male and 49.9 % female). Civic engagement was generally low among this adult population, in which about 10% belonged to a club or association, and only a fifth (22%) read a newspaper or watched TV news during the past week. The population was generally young with 39% aged 15-24 years and approximately the same proportion aged 25-44 years. About half (50.7%) were currently married, 42.1% single, and 7.2% widowed or divorced. Educational attainment was rather low, and over half (51.5%) of adults had less than basic education. Only 42% participated in the labor force, primarily due to a very low female participation, and 21.6% had low yearly income of Jordanian Dinar (US\$).

Approximately 40% had a health check up in the past six months and almost a third (30.5%) smoked regularly.

Overall, 25.7% of individuals reported their health as being fair or poor, with essentially no differences by gender. As expected, self-rated health was strongly associated with group (club) membership ( $p < 0.001$ ), but not with newspaper reading or TV watching. There were significant differences in reporting fair or poor health across marital status ( $p < 0.001$ ), where previously married had the higher reporting percentage (67%) of being in poor health compared to those single (10.2%). Moreover, reporting fair or poor health was significantly and consistently different across age groups ( $p < 0.001$ ), with the older age group (65 +) was more likely to report fair or poor health (75.5%) than the youngest group (7.2%). Similarly, there was major educational differentials for reporting fair or poor health ( $p < 0.001$ ), with respondents who had less than basic education reported higher proportions (37.4%) of fair or poor health than those with basic (10.9%) or secondary education (15.4%). Finally, self rated poor health was significantly associated with health checkups in last 6 months ( $p < 0.001$ ) current smoker ( $p < 0.001$ , and low income ( $p < 0.001$ ).

Logistic regression models of civic engagement indicators and individual characteristics on fair or poor self-rated health for males and females separately were carried out. Results for the first model in Table 2 show that of the three civic engagement indicators, only club membership was strongly and significantly associated with men's self rated health (OR = 3.40, CI: 1.34-8.64). Our main purpose was to uncover the impact of civic engagement on self-rated health net of other factors. The findings for males (Table 2) showed that the influence of civic engagement indicators changed very little after adjusting for several other risk factors. Non-members of clubs and associations were 3.3 (CI: 1.18-9.40) times more likely to be in fair or poor health compared to members, or otherwise publicly engaged men, after adjusting for the impact of other covariates. Fair or poor health status was also

strongly associated with older ages (for 40-46: OR = 13.31, CI: 4.15-42.66; for 65 + OR= 14.63, CI: 3.90-54.88), health checkups in last six months (OR =4.04, CI: 2.3-7.11), current smoker (OR= 1.66, CI: 0.91 -3.04), and low income (OR=1.86, CI: 1.03 – 3.35). There were no significant associations between men's poor health and their marital status, education, or labor force participation.

The patterns of association between the civic engagement indicators and poor health were different for females. As shown in Table 3, the findings from the first regression model showed a strong association between the three civic engagement indicators and self-assessed health. The odds ratios (unadjusted for potential confounders) of being in fair or poor health were 6.05 (CI: 1.21-30.18) for non-member of clubs, 2.6 (CI: 1.26-5.35) for non-readers of newspapers, and 2.0 (CI: 1.45-2.75) for those who did not watch TV news. However, none of these indicators were statistically associated with poor health once controls were made for other variables (model 2 in Table 3). Although some other covariates showed similar associations with poor health as those for men, demographic and socio-economic covariates were more important for women than men. In fact, among these covariates, only current smoking was not associated with self-assessed health, owing perhaps to the very small number of women who smoked regularly in this population. On the other hand, women's fair or poor health status was significantly and consistently associated with older age (for 40-46: OR = 6.14, CI: 2.92-12.90; for 65+, OR= 9.14, CI: 3.45-24.19), health checkups in last six months (OR =4.0, CI: 2.72-5.88), currently married (OR= 2.18, CI: 1.13 -4.22) or previously married (OR: 3.77, CI=1.66-8.55), low education (for less than basic, OR: 3.54, CI= 1.99-6.31), labor force participation (for non-participants, OR=0.46, CI=0.23-0.90), and low income (OR=2.10, CI: 1.43 – 3.07).

## ***Discussion***



Several studies were done to correlate components of social capital with self-rated health (Hyypä & Mäki, 2001; Rose, 2000; Ellaway & Macintyre, 2000; Veenstra, 2000; Kawachi et al, 1999; and Grundy & Slogget, 2003). These studies are not much comparable as each used a different measure of social capital and correlated it with different variables; However most showed significant associations between self-rated health and age (Hyypä & Mäki, 2001), income (Hyypä & Mäki, 2001; Veenstra, 2000; Rose, 2000; and Kawachi et al, 1999), smoking (Hyypä & Mäki, 2001), educational level (Veenstra, 2000) and labor force participation (Veenstra, 2000). Marital status, on the other hand, did not influence self-rated health (Veenstra, 2000) thereby contrasting our results.

Unlike previous studies, this study focused on civic engagement alone, which is widely accepted as a component of social capital. Our outcome measure of morbidity was self-rated health, previously shown to be a good predictor for morbidity and for use in studies investigating its association with individual levels of social capital (Veenstra, 2000).

Previous studies did not find any correlation between club memberships (Kawachi et al, 1999; Rose, 2000; Veenstra, 2000; and Hyypä & Mäki, 2001) and self-rated health on one hand, and between newspaper reading and self-rated health (Veenstra, 2000) on the other. On the contrary, these studies considered that neither club memberships nor newspaper reading were good determinants of self-rated morbidity (Kawachi et al, 1999; Veenstra, 2000; Rose, 2000; and Hyypä & Mäki, 2000). However, we found that self-rated general health was influenced by club memberships even after controlling for other variables; this relationship was particularly strong among males.

According to literature, gender did not influence self-rated health after controlling for income and educational attainment (Kawachi et al, 1999; and Veenstra, 2000). However, with the exception of health check-up and (to some extent) income, our results showed sex-

specific patterns of associations between civic engagement and other individual characteristics on the one hand and self-rated health on the other. Club membership, current smoking, and age were particularly important for men, with age showing stronger associations with self-rated health than in women. Socio-economic variables, including education, labor force participation and marital status were strong predictors of self-rated health exclusively in women. The variable "club membership" measuring civic engagement had significant association with fair and poor self-rated health for both males and females (Model 1). However, after controlling for other demographic, health, and socio-economic variables, the association remained significant only for males but not for females.

The strength of this study is being the first done in the Middle East region and targeting refugees for issues concerning social capital and health. Moreover, it is one of a few studies focusing on the role of gender in relation to social capital and health in poor communities.

Still, this study suffers from several limitations. Being a cross sectional study, the direction of causality remains unclear between the lack of civic engagement and poor health. Second, morbidity is measured merely by self-reporting of having fair or poor health. Third, there are many risk factors for self-reported health, but we included only two of them: current smoking and having health checkups in the last 6 months. Other measures of physical and mental health such as body mass index, nutritional diet, and psychological health, among others could have been included but were not available.

Moreover, this study relied on a few indicators to tap social capital, which is usually measured by club memberships, religious and political involvement (including voting), reading newspapers and watching television regularly, as well as by the number of friends or

relatives and by the level of trust in the community (Veenstra, 2000; Hyypä & Mäki, 2001; and Kawachi et al, 1999).

Another limitation of this study is that we assessed the effect of civic engagement on self-rated health by focusing on the individual level alone. That is, we were comparing the characteristics of the individuals without going out into those of the community as a whole, thereby introducing the possibility of ecological fallacies.

Several studies stressed the importance of multilevel analysis combining both contextual (community-based) and individual variables in assessing the relationship between social capital and self-rated health. Studies such as [Subramanian S.V. et al \(2001\)](#) and [Kawachi, I. et al \(1999\)](#) concluded that the relationship between social capital and individual health is affected by the characteristics of the community through different pathways. Depending on their features, neighborhoods may enhance the propagation of health information, increase the likelihood of healthy behaviors and attitudes, control and discourage unusual health behavior, promote access to health services, and provide support and act as a source of self-esteem to their members (Subramanian, S.V. et al, 2001).

As we mentioned earlier, our study showed sex-specific patterns of association between civic engagement and other covariates on one hand and self-rated health on the other. Women in such poor communities are expected to have lower educational attainment and lower labor force participation than men therefore making it difficult to compare across gender due to confounding variables.

Patriarchy?

Finally, the findings of our study cannot be generalized due to the special case of our target population. Our analysis is based on refugee camps in Jordan, impoverished communities

with specific traits and characteristics that differ from other communities. Our results may not be applied to other populations.

## ***CONCLUSION***

To the best of our knowledge, this is the first study investigating the association between civic engagement and morbidity in the Middle East context. Further in-depth research is needed to better understand the general context and pathways by which civic engagement affect self-rated health in refugees, and the possible mediating influence of the patriarchal system on civic engagement, self-rated health, or both.

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