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Civic engagement, gender and self-rated health in poor communities: Evidence from Jordan's refugee camps

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 analysis is based on a cross-sectional sample survey 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 are assessed using χ^2 tests and logistic regression models. Findings from a logistic regression model show that civic engagement, as measured primarily by membership in clubs and other civic groups, has a significant association with self-rated health net of the effects of demographic, human capital and health risk factors. The final model shows that the effects of control variables are in the anticipated direction, with age, marital status, health risk, education and poverty statistically significant. However, the findings pertaining to civic engagement hold for men but not women. We conclude that civic engagement is a powerful and significant predictor of self-rated health status among refugee men living in poor communities, but not for women. Low literacy and persisting patriarchy may account for the non-significant association between civic engagement and health status among women in this context.

KEY WORDS

civic engagement;
gender;
self-rated health;
refugees;
Jordan;
sociology

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Introduction

Over the past decade, social capital has appeared on the public health agenda worldwide. A main reason for its appeal from a public health perspective, is increasing evidence of its pivotal role in the health and well-being of individuals and communities. Various investigations demonstrate a link between social capital and health-related outcomes, including overall and cause-specific mortality (Kawachi *et al* 1997; Lochner *et al* 2003; Skrabski *et al* 2003), morbidity or self-rated general health (Ellaway and Macintyre 2000; Kawachi *et al* 1999; Grundy and Slogget 2003), violent and juvenile crime (Sampson 1997; Galea *et al* 2002; Kennedy *et al* 1998), drug abuse (Lovell 2002), insecurity (Lindstrom 2003), smoking (Lindstrom 2003), physical activity (Ashton and Alvarez-Dardet 2003; Lindstrom *et al* 2003), sexual health (Holtgrave and Crosby 2003), mental health (McKenzie *et al* 2002), teen birth (Gold *et al* 2002), and access to health services (Aye *et al* 2002; Hendryx *et al* 2002). However,

available studies have been largely based on secondary, aggregate data from Western societies particularly the US and UK. Despite growing research in this area, no study has examined the association between social capital on the health status of men and women separately in the Middle Eastern context.

This study examines the association between an important 'ingredient' of social capital, civic engagement, and self-rated health 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 is on the general health status of randomly selected adults aged 15 years and over, living in impoverished refugee camps. Two main questions are addressed: (1) what is the association between civic engagement (measured by group membership and an interest in current events through watching the television news and reading newspapers) with overall morbidity, net of other common risk factors?; and (2) does the association between civic engagement and morbidity differ by gender? Given the context of this study, we expect self-rated health to be associated with measures of civic engagement after controlling for other variables, but only among men.

Civic engagement and social capital

The general concept of social capital refers to the quantity and quality of social relations and norms embedded in the social structure of society which enable individuals to solve problems of public concern (Portes 1998; Putnam 1993). Defined as such, many elements of this concept are far from new. It can, in fact, be argued that social capital is the 'stuff' of sociology, with important dimensions going back to the classical social theorists, especially Durkheim and Marx. For example, Marx ([1857] 1956:96) stated that 'society is not merely an aggregate of individuals; is the sum of relations in which these individuals stand to one another'. Although some argue the concept has its origin in the 'decline of community' debates during the 1960s in the US, major contributions in sociology and political science during the 1980s and 1990s brought fresh insight and interpretations of the concept (e.g. Bourdieu 1986), provoking heated debates and new empirical research in the social sciences and public health. Indeed, efforts to identify 'the nature and extent' of social capital 'has become a veritable cottage industry across the social sciences' (Szreter and Woolcock 2004:650). Increasing evidence shows the importance of social capital as a predictor of a wide range of social, economic and health outcomes, especially in the Western context. However, there is a lack of consensus on the measures used to tap the concept as well as on its applicability across varied cultural settings (Baum and Ziersch 2003). Furthermore, the precise mechanisms linking the concept with various outcomes are still under-theorised (Baum and Ziersch 2003; Szreter and Woolcock 2004).

The term 'social capital' was popularised in the late 1980s by sociologists Pierre Bourdieu (1986) and James Coleman (1988), both of whom have essentially similar definitions of social capital (not withstanding their epistemological and 'political' orientations). Bourdieu (1986) defines social capital in terms of social connections. Put simply, an individual's contacts with others result in the accumulation of exchanges and obligations which in turn provide access to tangible resources. Yet, the significance of social capital *a la* Bourdieu cannot be understood without reference to other forms of capital, mainly economic, cultural and symbolic. His key insight is that these forms of capital are 'fungible' and can be traded for each other (Bourdieu 1993:32; Portes 1998). Thus, social capital cannot be acquired without some material (or cultural) 'investment'. Although Bourdieu's main interest lies in the making and re-making of structural configurations (e.g. the 'classification struggle' and the processes of inclusion and exclusion) in various 'fields' and hence class, his focus here is on the benefits accruing to individuals by virtue of their social ties with 'resourceful' others (Bourdieu 1993).

Similarly, Coleman (1988) emphasises the individual (or small group) in theorising the concept of social capital. He views social capital as a resource of social relations between families and groups benefiting the individual. However, he pays particular attention to social capital as a source of social control by virtue of its power over individuals to ensure they comply with prevailing norms. Coleman's perspective echoes previous concerns about the decline of 'community' during the 1960s and beyond, where it was thought to lead to the emergence of numerous social pathologies, including crime and normlessness.

More recently, Putnam (1993) defines social capital as a characteristic of communities, not individuals. Rather than being simply a resource, social capital is defined in terms of the individual's sense of belonging to their community and community networks, to notions of trust, as well as to 'civic engagement' more generally. This is clearly the broadest definition of social capital and the one most referred to in the field of public health, owing perhaps to the availability of 'macro-level' secondary data on 'trust' among individuals and institutions as well as 'participation' in public life (e.g. voting).

According to Putnam (1993), civic groups and voluntary organisations provide environments particularly conducive to cooperation and civic participation, and hence are rich sources of social capital. He argues that socio-economic development and 'institutional performance' in Italy relies less on initial economic conditions and more on levels of 'civic engagement'. The latter is measured by an index consisting of preference voting, referendum turnout, newspaper readership, and density of sport and cultural associations at the community level. Nevertheless, most attention is given to the positive role of civic associations, reflecting perhaps the influence of de Tocqueville's view that the ability of Americans to form organisations of various kinds contributes to democracy and good governance. Indeed, in his later works, Putnam (2000) claims voluntary associations, regardless of their activities, are responsible for differentials in 'health, wealth and happiness' among Americans.

Although the claim that social capital contributes to the wealth and health of communities and nations has been widely accepted, the concept remains one of the most contested in social science. Debates and controversies abound regarding the concept's theoretical merit, applicability to various settings, scale or levels of analysis, measurement and other related methodological problems. While it is not the purpose of this paper to elaborate the pros and cons of the concept, a few critical remarks of the social capital literature are in order. First, proponents of the concept ignore structural inequalities and political power in accounting for differentials in health and well-being but also social capital (Harris 2001; Muntaner and Lynch 2002; Navarro 2002; Whitehead and Diderichsen 2001). Some of this literature is critical of the concept on 'ideological' or otherwise 'political' grounds (e.g. Harris 2001), implying that unhealthy or disadvantaged communities can fix their problems cheaply (e.g. strengthen their ties) without major structural changes, consistent with the 'neo-liberal' discourse (Szreter and Woolcock 2004). Other analysts point to the strength of the evidence linking social capital to health in light of structural determinants of a 'materialist' or 'political' nature (Lynch *et al* 2000; Muntaner 2004).

Second, the concept is theoretically vague. Although originally intended to denote social ties to resourceful or otherwise 'advantaged' persons, groups and perhaps organisations, the concept has been stretched in the empirical literature to include other dimensions such as religious involvement, voting, trust of individuals and institutions, protest, helping behaviour and other forms of 'instrumental' social support, 'cognitive' elements such as self-efficacy and a sense of community. Some researchers seem to dismiss the concept as another 'metaphor' for a wide repertoire of old concepts such as 'social cohesion', 'social integration', or 'hierarchically structured networks' (Muntaner 2004:676-677). Recently, Szreter and Woolcock (2004) attempted to clarify the concept by distinguishing between bridging, bonding and linking social capital. A related concern is the appropriate unit

of analysis applied to the concept of social capital. Some argue for applying the concept to individuals (Coleman 1989; Lin 2001; Portes 1998), while others consider it a property of groups or networks (Kawachi *et al* 1997; Szreter and Weelcock 2004:655). Another methodological problem pertaining to the larger emerging 'field' of social or psychosocial epidemiology, is the failure to account for relevant confounding variables and the sole reliance on 'self-reports' in available empirical studies (Muntaner 2004).

Finally, research on social capital and health largely exclude class, race and gender from consideration (Lynch *et al* 2000; Muntaner *et al* 1999; Muntaner and Lynch 1999). Although much of the research on social capital focuses on the construct as mediating between income (or class) inequality and health outcomes (such as mortality), race and gender remain largely neglected. Indeed, racism and patriarchy are characteristic features of many specific social structures, and yet are often omitted from empirical research on social capital and health.

Despite these theoretical and methodological shortcomings, the concept of social capital retains its initial appeal among social scientists, health practitioners and policy makers, and has been adopted by national governments (e.g. U.K.) and international organisations such as the *World Health Organisation*. There are several empirical studies linking civic engagement or membership in voluntary associations to various socio-economic (Tolbert *et al* 1998) and health outcomes (Ziersch and Baum 2004), though the evidence base is generally thin and inconclusive. Studies examining the association between aspects of civic engagement and health at the individual level have produced mixed results. Some studies (Rietschlin 1998; Joshi *et al* 2000; Hyyppä and Mäki 2001; Lindstrom *et al* 2001; Lochner *et al* 2003) found positive associations between measures of civic engagement (e.g. group membership, voluntary work) and self-rated health, depression or symptoms of ill health. Other studies did not find significant associations between self-rated health and either club/group membership (Campbell and Wood 1999; Ellaway and Macintyre 1999; Kawachi *et al* 1999; Rose 2000; Veenstra 2000; Bush and Baum 2001; Hyyppä and Mäki 2001; Harpham *et al* 2004; Zeirsch and Baum 2004) or newspaper reading (Veenstra 2000).

This paper uses elements of Putnam's conception of civic engagement to examine its association with individual health status in a context very different from those of previous studies. The setting is unique in that it includes a vulnerable refugee population living in camps characterised by poor living conditions (Khawaja 2003). The paper also departs from previous studies in two ways. First, it gives particular attention to the gender dimension which has been largely neglected in studies of social capital and health. Second, it uses different measures of the civic engagement concept instead of relying on a single construct.

The setting

Jordan houses the largest number of Palestinian refugees, making it essentially a bi-national country. This bi-national character is essentially the result of refugee influx during the 1948-49 and 1967 Arab–Israeli wars, as well as the return of labour migrants from the oil-producing Arab Gulf states in the aftermath of the 1990 Gulf war. Currently, about 40 percent of Palestinian registered refugees are living in Jordan (UNRWA 2002). Although Jordan does not officially produce data on the ethnic composition of its population, a national-level, representative household survey conducted in 1996 found that 42% of nearly 5 million Jordanians considered themselves Palestinian refugees (Arneberg 1997). Moreover, about one-third of all refugees in Jordan live in crowded camps under precarious conditions (Khawaja and Tiltnes 2002).

The situation of Palestinian refugees in Jordan differs considerably from that of other refugees in the region. Virtually all Palestinian refugees in Jordan have Jordanian citizenship, with rights comparable to other native Jordanians. Palestinians are represented in the Jordanian Parliament and the government, and the Queen is of Palestinian origin. Residents of the camps however, are of lower socio-economic status than other refugees in Jordan, and cannot afford to

move to better, more expensive areas outside. By focusing on camp refugees therefore, our study is concerned with disadvantaged refugee communities rather than with the issue of 'refugeeness' as such.

There are a total of 13 Palestinian refugee camps in Jordan, some of which are not recognised by UNRWA, and hence ineligible for assistance to improve local infrastructure or services (see Table 1). This study focuses on 12 of the camps; one being excluded due to the lack of adequate maps necessary for sampling purposes. Five of the camps (Irbid, Wihdat, Hussein, Maadaba, and Zarqa, the oldest) were established soon after the 1948 war or in the early 1950s; the remaining eight camps were established to house Palestinians displaced as a result of the 1967 war (DPA 2000). The camps were created at the outskirts of the main cities of Jordan. Camp sites were often chosen randomly due to the sudden or otherwise unorganised nature of the refugee movement (DPA 2000:20). Some camps were established on areas where the refugees first arrived in Jordan, while others were built later when the government granted UNRWA land plots to provide temporary shelter to Palestinian refugees.

The refugee camps are quite heterogeneous in terms of population size, geography, infrastructural conditions, and economy (DPA 2000). It is beyond the scope of this paper to provide a thorough narrative of the refugee camps. However, a few relevant features should be pointed out. First, the camps' populations are found largely in the metropolitan area of Amman (including Balqa), and to a lesser extent in the northern governorates of Madaba, Zarqa, Irbid and Jarash (Table 1). While all camps can be considered urban in character, those located in the north are more rural in terms of the population's involvement in agriculture. Second, while the camps are undoubtedly separate 'communities', not all can be considered autonomous in a geographic or administrative sense. Rapid urbanisation in Jordan has contributed to the incorporation of camps into neighbourhood-like areas of much larger cities; the camps of Wihdat and Hussein in the Capital city of Amman are good examples of this. Third, UNRWA does not officially recognise three of the camps, even though all registered refugees living within are entitled to its services. And fourth, all camps lack adequate recreational and service facilities, with restricted opportunities for

Table 1: The Palestinian refugee camps in Jordan

Camp	Governorate	Year of founding	Population in 2000
Wihdat	Amman	1955	44,395
Prince Hassan	Amman	1967	9,000
Talibieh *	Amman	1968	8,754
Baqa'a	Balqa	1968	83,127
Irbid	Irbid	1950	21,753
Azmi al-Mufti	Irbid	1968	18,655
Zarqa	Zarqa	1968	16,494
Hitteen	Zarqa	1968	45,550
Sukhneh *	Zarqa	1969	4,750
Souf *	Jerash	1967	15,000
Jerash	Jerash	1968	26,000
Madaba	Madaba	1956	5,500

* Not recognised by UNRWA
Source: DPA, 2000.

involvement in civic activities, especially for women. Despite some progress in gender equity in the Arab region during the past few decades, Jordanian society remains generally patriarchal, with markedly defined roles for men and women. This is particularly the case in disadvantaged refugee camps, where education and income are relatively low (Khawaja and Tiltnes 2001). Traditionally, adult Arab men are the main breadwinners, and expected to assume 'protective' responsibilities for their dependents (wives, children, and elders). The role of women, on the other hand, is largely confined to the home, with sole responsibilities for household chores and child rearing. And in spite of rising education, few Arab women participate in the labour force: they do so when they are single or to supplement their husbands' income in times of need. Lacking an independent income source, and coupled with legal and societal restrictions on their autonomy, refugee women in Jordan are rarely engaged in civic, extra familial matters including formal and informal associations. Although there is an increased exposure to the mass media and other globalising influences (e.g. the movement of people across borders), traditions still hold, and Jordan is considered one of the more socially 'conservative' societies in the region (Abdallah 1995; Layne 1981).

Data and methods

Our source of data is the 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. This is a cross-sectional survey of about 3,100 households selected randomly from 12 refugee camps, with over-sampling in two of the camps to allow for further in-depth analysis. Households are selected from a detailed sampling frame provided by the Jordan Department of Statistics. The frame is based on 1994 census data and updated for this survey using detailed maps available from the Department of Palestinian Affairs (DPA). The instrument consists 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 was 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 the 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%. Details of the methodology, including sampling design and implementation, is provided in Khawaja and Tiltnes (2003).

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

Our main hypothesis is that civic engagement should be associated with self-assessed health status, net of demographic, health and socioeconomic risk factors. Hence, the main independent variable is civic engagement, a fundamental component of social capital. Given the multidimensionality of this variable (Lochner *et al* 1999), we use three indicators to tap it: membership in clubs and civic associations, newspaper reading (yesterday), and watching the news on television during the past week. Club membership is measured by asking: 'Are you a member of a club or an association such as youth, women, social, sport, or cultural ones?' Note that membership in political organisations is not included in this definition because of our interest in civic rather than political involvement and the fact that questions about affiliations with political groups are considered very sensitive in Jordan, especially for refugees. Answers to each of the three civic engagement items are dichotomous (yes/no). The other two indicators are measured by straightforward questions about reading a newspaper (yes/no) and watching the news on television (yes, no) at any time during the week before the survey date. These two indicators of civic engagement reflect engagement in current events rather than simply exposure to the media,

including television. Taken as a whole, these three measures are rather similar to those used by Putnam (1993) in his study of governance in Italy.

Demographic and socio-economic control variables include age (15–24, 25–39, 40–64, 65+), marital status (single, married, and previously married), educational level completed (less than basic, basic, secondary or more), labour force participation (in the labour force, out of the labour force), and family income (low or high). Labour force participation is measured for the week prior to the survey in accordance with the International Labour Organisation's guidelines. The cut-off point for low income is the lowest 20th percentile of household yearly income, making it a measure of income-poverty. Household income is adjusted for household size using the OECD equivalence scale before categorising it into income-groups (see Buhmann *et al* 1988). In addition, two health-related control variables are used: health examinations within the past six months (yes/no) and current smoking status (yes/no). Taken together, these control variables are identified in previous studies as important predictors of individual-level self-rated health.

In the analysis, sampling weights are applied in order to adjust for over-sampling 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 the analysis of a household survey like this one may lead to serious biases in the estimates (Levy and Lemeshow 1999).

Univariate descriptive statistics for the variables included in our sample are first calculated followed by bivariate analysis to examine the association between self-assessed morbidity and all the covariates included in the analysis. We then used binomial logistic regression models, for men and women separately, to assess the association between self-assessed morbidity and civic engagement, controlling for relevant demographic, socio-economic and health-risk factors. A preliminary examination of the data indicated a strong interaction between gender and civic engagement, demonstrating the need for case sex-specific models. The strategy was to construct a model containing only civic engagement variables, and then add relevant control variables to create an inclusive model.

Findings and discussion

Table 2 shows the demographic and social characteristics of the sample, and the percentages of adults reporting fair or poor health. Our weighted sample consists of 1,615 individuals (50.1% male and 49.9% female). The sampled population is generally young with 39% aged 15-24 years and approximately the same proportion aged 25–44 years. About half (50.7%) are currently married, 42.1% single, and 7.2% widowed or divorced. Educational attainment is rather low, and over half (51.5%) the adults had less than basic education. Only 42% participated in the labour force, primarily due to the very low female participation rate. Approximately 40% had undergone a health examination in the past six months, and almost a third (30.5%) smoked regularly.

Civic engagement is generally low among this adult population relative to international standards, with about 8% belonging to a club or association. Although we lack comparable data on club membership from this region, reported international levels of membership in voluntary organisations are much higher: 49% in the world as a whole (Schofer and Fourcade-Gourinchas 2001). The low level of membership in associations could be due to the lack of adequate numbers of clubs and civic organisations in poor urban environments such as the camps of Jordan. It may also reflect the socially conservative nature of Jordanian society, where women are largely homemakers and rarely engage in activities outside the house. On the other hand, only 16% read a newspaper and less than half watched the television news during the past week. Although these figures may seem high for a developing country setting, they are not so for the Middle East where the populations are generally 'politicised', and tend to regularly follow current events.

Overall, 25.7% of adults reported fair or poor health, with essentially no differences by gender. Bivariate analysis showed that self-rated health

Table 2: Distribution of sample by demographic, socio-economic and civic engagement measures and their associations with fair/poor health, 1999

Variable	N (%)	% Reporting fair/poor health	P- value
Civic engagement			
Group membership			
Yes	125 (7.8)	9.8	0.000
No	1489 (92.3)	27.0	
Newspaper reading			
Yes	263 (16.3)	21.9	0.144
No	1351 (83.7)	26.4	
T.V. News watching			
Yes	762 (47.2)	21.5	0.000
No	852 (52.8)	29.4	
Demographic and socio-economic characteristics			
Sex			
Male	809 (50.1)	25.2	0.689
Female	806 (49.9)	26.1	
Marital status			
Single	679 (42.1)	10.2	0.000
Married	819 (50.7)	32.6	
Previously married	116 (7.2)	67.0	
Age			
15-24	630 (39.0)	7.2	0.000
25-44	626 (38.8)	22.9	
45-64	244 (15.1)	57.0	
65 +	114 (7.1)	75.5	
Education			
Less than basic	831 (51.5)	37.4	0.000
Basic	390 (24.1)	10.9	
Secondary and above	394 (24.4)	15.4	
Labour force			
In labour force	639 (40.2)	24.2	0.205
Out of labour force	952 (59.9)	27.1	
Household income			
Low	348 (21.6)	38.0	0.000
High	1266 (78.5)	22.3	
Health risk indicators			
Health examinations during the previous six months			
Yes	637 (39.5)	43.7	0.000
No	977 (60.5)	13.9	
Smoking			
Smoker	492 (30.5)	29.2	0.032
Non-Smoker	1122 (69.5)	24.1	

Note: Weighted sample; percentages might not add to 100 because of rounding

is strongly associated with group membership ($p<0.001$), but not with reading newspapers or watching television. Evidently, active engagements such as group membership seem more discriminating with regard to health compared with passive engagements such as watching the news. Another possible reason for this difference is the confounding by gender, where women in this context have limited opportunities to participate in civic associations owing to male-imposed restrictions, modesty or the lack of appropriate facilities for women. There are significant differences in reporting fair or poor health across marital status ($p<0.001$), where a higher proportion of the previously married (67%) reported being in poor health compared to those who were single (10.2%). This may reflect age, for the singles are much younger than those married, widowed or divorced. As expected, reporting fair or poor health is significantly and consistently different across age groups ($p<0.001$), with the older age group (65+) more likely to report fair or poor health (75.5%) than the youngest group (7.2%). Similarly, there are major educational differentials for reporting fair or poor health ($p<0.001$), with respondents with less than basic education reporting higher proportions (37.4%) of fair or poor health than those with basic (10.9%) or secondary education (15.4%). Again, age here is a confounding variable, and those with low educational levels tend to be older. Also as expected, self-rated poor health is significantly associated with the prevalence of health examinations during last six months ($p<0.001$), current smoking ($p<0.001$), and low income ($p<0.001$).

Civic engagement and self-rated health by gender

Our main purpose is to uncover the association between civic engagement indicators and self-rated health net of other factors. For this purpose, adjusted odds ratios from logistic regression models of civic engagement indicators, and individual characteristics on fair or poor self-rated health for men and women, are carried out separately. The necessity for running separate analysis for men and women is that the association between civic engagement and self-rated health would differ by gender in such a patriarchal setting. In fact, our results reinforced this expectation as the associations between self-rated health and both the civic engagement and control variables differed across gender.

Results for the first model in Table 3 show that of the three civic engagement indicators, only club membership is strongly and significantly associated with men's self-rated health (OR=3.40). The findings for men show that the influence of civic engagement indicators change very little after adjusting for several other risk factors. Non-members of clubs and associations are 3.3 times more likely to be in fair or poor health compared with members, or otherwise publicly engaged men, after adjusting for the impact of other covariates. Fair or poor health status is also strongly associated with older ages (for 40–46: OR=13.31; for 65+ OR=14.63), health examinations during last six months (OR=4.04), current smoking (OR=1.66), and low income (OR=1.86). Although risk factors such as age and health condition (indicated by a health examination during the past six months) are stronger predictors of health status than group membership, health behaviour (smoking) and low income are not as strong as civic engagement in predicting self-rated health.

In other words, it seems that out of the three indicators of civic engagement, only club membership is significantly associated with self-rated health among men, with those not involved in groups three times more likely to report fair/poor health than those who are. This level of association is not altered when independent factors are taken into consideration. These results suggest that of the civic engagement indicators, club membership is the most strongly associated with self-rated health. It can be argued that reading newspapers and watching television news are passive (i.e. non-interactive) activities and lack relational content and thus have no effect on self-rated health.

However, there is no association between labour force participation and reporting fair/poor health among men. It could be that our measure of labour force participation did not account for

Table 3: Logistic regression of civic engagement on fair/poor self-rated health for males, Jordan refugee camps

Variable	Model 1		Model 2	
	Odds ratio	95% CI	Odds ratio	95% CI
Civic engagement				
Group membership				
Yes	1.00		1.00	
No	3.40*	1.34-8.64	3.33*	1.18–9.40
Newspaper reading				
Yes	1.00		1.00	
No	0.85	0.49-1.48	0.51	0.24–1.06
T.V. News watching				
Yes	1.00		1.00	
No	1.10	0.69-1.74	1.36	0.77–2.42
Demographic and socio-economic characteristics				
Marital status				
Single			1.00	
Married			0.84	0.36–1.98
Previously married			1.47	0.33–6.65
Age				
15–24			1.00	
25–44			3.42*	1.31– 8.92
45–64			13.31*	4.15–42.66
65 +			14.63*	3.90–54.88
Education				
Less than basic			1.31	0.62–2.78
Basic			0.56	0.24–1.32
Secondary and above			1.00	
Labour force				
In labour force			1.00	
Out of labour force			1.24	0.59–2.62
Household income				
Low			1.86*	1.03–3.55
High			1.00	
Health risk indicators				
Health examinations during the previous six months				
Yes			4.04*	2.30–7.11
No			1.00	
Smoking				
Smoker			1.66*	0.91–3.04
Non-smoker			1.00	

Note: Weighted sample
* p-value < 0.05

social inequality as suggested by Muntaner (2002) and Eaton *et al* (2001) and is not therefore related to self-rated health. Another possible reason would be the poor conditions of the communities under study, where the type of work undertaken is relatively homogeneous and tends not to be associated with social power within the community.

As expected, the patterns of association between the civic engagement indicators and poor health are different for women. As shown in Table 4, the findings from the first regression model show 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 are 6.05 for non-members of clubs, 2.6 for non-readers of newspapers, and 2.0 for those who do not watch the television news. However, when controlling for the effects of other factors such as age, marital status, educational level, household income and labour force participation, the associations between all indicators of civic engagement and self-rated health disappear (models 2 in Table 4). In a context of patriarchy and extreme gender segregation such as this one, engagement with civic associations apparently has little impact on reported health status. The lack of a significant association could be due to sample size; that is, the rarity of women's involvement in activities outside the 'private sphere' of the home. When demographic and other factors are taken into consideration, the association between club membership and the reporting of fair/poor health seem large although non-significant. Women, as men, are three times more likely to report fair/poor health when they are not involved in any club compared to others. Thus, the lack of statistical significance could be attributed to the minimal numbers of civically engaged women in these communities.

Although some other covariates show similar associations with poor health for both men and women, demographic and socio-economic covariates are more important for women. In fact, among these covariates, only current smoking is not associated with self-assessed health, owing perhaps to the very small number of women who smoke regularly in this population. On the other hand, women's fair or poor health status is significantly and consistently associated with older age (for 40–46: OR=6.14; for 65+: OR=9.14), health examinations during the previous six months (OR=4.0), currently married (OR=2.18) or previously married (OR=3.77), low education (for less than basic, OR=3.54), labour force participation (for non-participants, OR=0.46), and low household income (OR=2.10). Overall, these findings indicate that women of relatively high socio-economic background are advantaged with regard to health status, regardless of age or risky behaviour (smoking). One explanation for these findings is that socio-economically advantaged women tend to seek and use health care services, and hence improved their health status. Another plausible explanation is that income and similar material advantages lead to better mental health and hence better overall health status (Wilkinson 1996).

Thus, the relationships between our independent variables and self-rated health differed considerably between men and women. Although the relationship between age and household income had the same direction and significance across gender, the association between marital status, education and labour force participation and our outcome variable is not similar for the two groups. The association between educational level and self-rated health is clearer among women; the odds of reporting fair/poor health decrease by increasing educational level whereas there is no clear pattern among men. On the other hand, the relationship between self-rated health and labour force participation became significant among women: those who are out of the labour force are less than half as likely to report fair/poor health than those who are in the labour force. This finding may be explained by the nature of the patriarchal context prevailing in the camps of Jordan where women are not expected to participate in the formal labour force, and are apparently better off when they are detached from the labour market compared with other women.

The finding pertaining to marital status for women differs from those reported in the West.

Table 4: Logistic regression of civic engagement on fair/poor self- rated health for females, Jordan refugee camps

Variable	Model 1		Model 2	
	Odds ratio	95% CI	Odds ratio	95% CI
Civic engagement				
Group membership				
Yes	1.00		1.00	
No	6.05*	1.21-30.18	3.33	0.54–20.48
Newspaper reading				
Yes	1.00		1.00	
No	2.60*	1.26-5.35	0.92	0.41–2.07
T.V. News watching				
Yes	1.00		1.00	
No	2.00*	1.45-2.75	1.35	0.89–2.05
Demographic and socio-economic characteristics				
Marital status				
Single			1.00	
Married			2.18*	1.13–4.22
Previously married			3.77*	1.66–8.55
Age				
15–24			1.00	
25–44			2.54*	1.33–4.84
45–64			6.14*	2.92–12.90
65+			9.14*	3.45–24.19
Education				
Less than basic			3.54*	1.99–6.31
Basic			2.34*	1.12–4.91
Secondary and above			1.00	
Labour force				
In labour force			1.00	
Out of labour force			0.46*	0.23–0.90
Household income				
Low			2.10*	1.43–3.07
High			1.00	
Health risk indicators				
Health examinations during the previous six months				
Yes			4.00*	2.72–5.88
No			1.00	
Smoking				
Smoker			1.75	1.00–3.06
Non-Smoker			1.00	

Note: Weighted sample
* p-value < 0.05

Clearly, women who are single are much less likely to report poor health than ever-married women. It also appears that divorced or widowed women are nearly four times more likely to report poor health than never-married women and twice more likely than currently married women. This could be attributed to the poor living conditions in the camps. Although household income and age have been controlled for, it is possible that marriage and the probability of having children increase the responsibility and burden on women, making them more prone to reporting fair/poor health. This makes sense especially for single mothers who are widowed or divorced, a status which is generally considered 'degrading' in conservative Arab societies (Abdallah 1995). Arab societies traditionally accord power and status to marriage and childbearing for women, and hence it is not surprising to find divorced women reporting poorer health status in this context than married women.

Summary and conclusions

This study examined the association between civic engagement and self-rated health by gender using household data from disadvantaged refugee populations living in Jordanian camps. The study builds on a growing body of literature investigating the links between social capital and health status. Several previous studies have examined the association between selected components of social capital and self-rated health (Hyyppä and Mäki 2001; Rose 2000; Ellaway and Macintyre 2000; Veenstra 2000; Kawachi *et al* 1999; Grundy and Slogget 2003). Although these used different measures of social capital, many showed significant associations between social capital and measures of reported health status. In previous studies on social capital and self-rated health, gender is often not associated with self-rated health after controlling for income and educational attainment (Kawachi *et al* 1999; Veenstra 2000). Unlike most previous studies, our study focused on civic engagement, an important component of social capital, in a low-income, patriarchal context. Our outcome measure of self-rated health, previously shown to be a good predictor of morbidity and mortality, is used by several analysts in assessing its association with individual measures of social capital (Kawachi *et al* 1999; Veenstra 2000). The findings reported here show a strong association between self-rated health and one component of civic engagement, club membership, but only for men. Newspaper readership and watching the television news are not associated with self-rated health for either men or women after adjusting for other relevant covariates. Such findings suggest that active involvement is different from passive engagement with respect to self-assessed health. Although we cannot make causal statements based on these findings from cross-sectional data, the literature suggests various mechanisms as to why civic engagement leads to better health and well-being either directly or indirectly. The links between the two range from psychosocial constructs such as stress or 'loss of autonomy' over one's life (Brunner and Marmot 1999), increased anxiety associated with hierarchies and inequalities) (Wilkinson 1996), to social support mechanisms and inter-personal trust enabling individuals to solve collective problems (Putnam 2000), or to access health resources (Kawachi *et al* 1997). Such mediating mechanisms may provide buffers against precarious living conditions and structural disadvantages (such as poverty, displacement and isolation) which face a refugee population, especially for women.

Our findings pertaining to other covariates are consistent with previous studies, showing significant associations between self-rated health and age (Hyyppä and Mäki 2001; Ziersch and Baum 2004), income (Hyyppä and Mäki 2001; Veenstra 2000; Rose 2000; Kawachi *et al* 1999; Ziersch and Baum 2004), smoking (Hyyppä and Mäki 2001), educational level and labour force participation (Veenstra 2000). However, with the exception of health examinations and household income, our results showed sex-specific patterns of associations between our independent variables and self-rated health. Club membership, current smoking, and age are particularly important for men, with age showing stronger associations with self-rated health than in women. Socio-economic variables, including education,

labour force participation and marital status are strong predictors of self-rated health exclusively in women.

Women in such poor communities have generally lower educational attainment and lower labour force participation than men. Although the study controlled for the effects of these confounders, the differences may be due to the very low level of prevalence in labour force participation among women. Finally, the findings of our study are based on refugees living in impoverished camps, with specific traits and characteristics which differ from other communities in Jordan and beyond. Our results may not therefore be generalised to the wider population in Jordan or elsewhere.

Strengths and limitations

This study is among the first to investigate issues related to social capital and self-reported health of vulnerable refugees in the Middle East region, and this is perhaps its major strength. However, the study suffers from several limitations. First, the study relies on a cross-sectional design not a longitudinal one. It can therefore address associations between the lack of civic engagement and poor health status but the direction of causality remains unclear. Since the study controls for important biological and health-related risk factors, including health examinations during the six months preceding the survey, the results reported here could be important from a policy perspective despite the cross-sectional design of the study.

Second, general morbidity is measured by self-reporting of one's health status. Although self-reporting of general health is known to be associated with mortality and morbidity, physical health status has many specific dimensions which are excluded in this study due to the lack of requisite data, and uncertainty about the reliability of responses to health-related questions in large population surveys where there are few medical examinations. Third, there are many health 'risk factors' for self-reported health, but we included only two of them: current smoking and having health examinations during the previous six months. Other risk factors for physical and mental health (such as Body Mass Index, nutritional diet, and psychological health), could have been included but were not available for this survey.

Furthermore, this study relies on only one dimension of social capital, civic engagement. Other dimensions and indicators of social capital such as religious and political involvement (including voting), level of trust, reciprocity, and the number of friends or relatives (Veenstra 2000; Hyyppä and Mäki 2001; Kawachi *et al* 1999) are not included. In measuring civic engagement, we essentially followed Putnam (1993) in emphasising group membership and media exposure (newspaper readership and watching television), but we excluded voting and 'voter turnout' due to the lack of data on voting practices as well as the sensitivity of this topic among refugees in our context.

Another limitation of this study is that we assessed the effect of civic engagement on self-rated health by focusing on the individual. Several studies stress the importance of multi-level analysis combining both contextual and individual variables in assessing the relationship between social capital and self-rated health. For example, Subramanian *et al* (2001) and Kawachi *et al* (1999) conclude that the relationship between social capital and individual health is affected by the characteristics of the community. Depending on their features, neighbourhoods or communities may enhance the propagation of health information, increase the likelihood of healthy behaviours and attitudes, control and discourage unusual health behaviour, promote access to health services, provide support, and act as a source of self-esteem to members (Subramanian *et al* 2001). Although community level effects are of particular importance in studies linking social capital to health, the number of places in our study is rather small (12 camps). Also, the camps included in this study sample are rather homogeneous in terms of their socio-economic, regional or demographic composition compared with other communities in Jordan. There are however, substantial variations among the camps in terms of population size, density and proximity to cities.

Despite these limitations, the study findings have important implications for policy and research. The findings suggest that building civic associations and the promotion of this kind of social capital may be beneficial to the health of refugees living in poor environments. Although civic institutions are scarce in Jordan's refugee camps, they provide membership and services largely to men but not women. Women's engagement with others is limited to informal groups, based on family or clan. The vast majority lack freedom of movement even within their communities of residence (Khawaja and Tiltnes 2002). Prevailing constraints on women's participation in the public sphere stem from wider gender-based inequalities rooted in Jordanian society. Efforts to break male dominance in the home and beyond through intervention programs may provide women with opportunities to engage in civic activities and hence improve their health and sense of well-being.

Further in-depth research is needed to better understand the general context and pathways by which civic engagement is linked to self-rated health, and the possible mediating influence of the patriarchal system on civic engagement, self-rated health, or both.

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