

SOCIAL CAPITAL AMONG OLDER IRANIAN ADULTS: DEMOGRAPHIC AND SOCIOECONOMIC DIFFERENCES

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ABSTRACT

Social capital makes it easier to access resources and to create well-being in older people through a sense of connectedness. This study aims to explore the dimensions of social capital that are most prevalent and to identify the relationships that exist between demographic characteristics and social capital among elderly Iranian people. In this cross-sectional study, over a six-month period, data were gathered from 320 elderly people aged 60 years old or older. The participants answered a questionnaire containing two sections, which included items that measured variables relevant to demographic status and social capital (consisting of 32 questions in eight dimensions). The data were analysed using SPSS software, version 19. The findings showed that the participants consisted of 193 men and 127 women with a mean age of 67.03 ± 5.51 years old. The question with the uppermost mean of social capital was "How many people did you talk to yesterday?" ($M = 2.96$). The highest degree of response of social capital reported by the participants was for pro-activity in a social context (70.9 percent), followed by feelings of trust (67.8 percent). Only 10.9 percent provided responses regarding participation in community components. There were strong correlations between almost all of the demographic variables and social capital dimensions, particularly education and income. Age was rather consistently negatively correlated with social capital measures; education, in contrast, was a strong contributor to social capital. The results showed that social capital dimensions were predicted by most of the demographic variables ($P < 0.05$). They also showed that, like other kinds of capital (physical and human capital), there was an uneven distribution of social capital among older adults in terms of

sociodemographic characteristics. However, it was difficult to separate the causal processes involved; therefore, more studies of the causal effects of sociodemographic characteristics on social capital accumulation are recommended.

Keywords: Social capital, Iranian elderly, sociodemographic characteristics, social participation, social networking

INTRODUCTION

Social capital has become a popular topic over the past decade, and the literature connecting it with health has grown quickly (Veenstra 2000). It has been differentiated (Putnam 2000) from earlier versions of economic capital (money), physical capital (factories, etc.) and human capital (skills, education, etc.). Generally, social capital refers to the social relationships between people that enable productive outcomes (Szreter 2000). It can be seen as the glue that holds together social collectives, such as networks of personal relationships, communities or even whole nations (Ellison et al. 2006). According to Pierre Bourdieu (1986), social capital is the sum of resources, actual or virtual, that builds up within an individual or group by virtue of creating a strong network (Bourdieu 1986). It facilitates the accessing of resources and the creation of well-being through a sense of connectedness. This sense is particularly important in older people, and it is now being recognised as a critical problem, along with the increase in life expectancy and the growing number of older people (Terrion and Lagace 2008; Nyqvist et al. 2013).

Social capital is predominantly significant in the elderly population, who often experience a decrease in personal interactions as they age (Hodgkin 2012). Human contact for older adults is very important (Fratiglioni et al. 2000; Mulvaney-Day et al. 2007). The social engagement and participation of older adults in society are seen as indicators of successful ageing (Rowe and Kahn 1997). With the changing nature of society in recent years, many older people, compared to other age groups, are at risk of social isolation and of having limited contact with others (Mellor et al. 2008). A range of circumstances can place older people at an increased risk of social exclusion (Victor et al. 2000). They might lose important parts of their social environments during retirement or lose a partner, relatives and friends through illness, death or change in geographic location, and their health might deteriorate (disease and disability) (Mellor et al. 2008; Victor et al. 2000). Interaction with others, which is the main

concept of social capital, presents important advantages for people as they age (Karlsdotter et al. 2011). Research has shown that people with extensive social connections linking them to people with diverse resources tend to be better employed and housed, and happier (Imandoust 2011). Furthermore, a range of beneficial outcomes in terms of health and social benefits have been linked to older adults' networks, such as having greater independence and receiving more effective long-term care (Keating et al. 2005). Conversely, people who are less emotional and have less social support due to social isolation are more likely to become depressed (Prince et al. 1997), to receive less emotional and instrumental support (Chou and Chi 2000), to suffer from cognitive decline (Bassuk et al. 1999) and to report worse quality of life and well-being than elderly people with more social contacts (Chou and Chi 2000). Therefore, paying attention to the social interaction and social capital of elderly adults seems important. In Iran, as in many other countries, there is growing interest in the role that social capital might play in determining social, economic and health outcomes (Shoja et al. 2013). Accordingly, a greater understanding of social capital in the context of population ageing has been identified as a priority for research.

Social capital has its source in the works of early economic and sociological thinkers, such as Pierre Bourdieu, James Coleman and Robert Putnam (Bourdieu 1986; Coleman 1988; Putnam 1995). However, many scholars have contributed to this concept; there is no common agreement over the definition of social capital, and its definition in each study depends on the discipline and level of investigation. Putnam defined social capital as follows: "Whereas physical capital refers to physical objects and human capital refers to the properties of individuals, social capital refers to connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them" (Putnam 2000: 19).

Coleman subsequently refined the concept of social capital with links to physical and human capital, which helps to achieve certain aims that might not be possible to achieve in its absence. In this manner, social capital is creative like other forms of capital, for example, physical and human capital. Additionally, like these forms of capital, it is not completely interchangeable with others (Coleman 1988). While the definition of social capital differs to some extent from researcher to researcher, there is conformity that social capital is derived from relationships with other people in a social structure (Putnam 2000). Social capital as a multidimensional concept includes various parts of the social structure such as participation in community, feelings of trust and safety, neighbourhoods and family connections and tolerance of diversity (Onyx and Bullen 2000).

Research has emphasised that social capital is a predefining indicator of well-being (Coleman 1990); social capital theory is a powerful framework that can be used to understand how elderly people and the social networks of which they are parts interact with each other to define their well-being. Social capital theory suggests that there are some abilities and values rooted in social networks and relationships that create certain types of benefits, both instrumental and emotional, for people to use, which depend on whom one knows and how well one understands one's social relationships (Bourdieu 1986; Portes 1998). These values are achieved through investments in social relationships, and they are translated into social and economic gains for individuals. However, unlike other forms of capital, no single individual can claim ownership of this value because it is only created through useful interactions across social networks (Coleman 1988). Putnam (1995) also proposed that the core idea of social capital theory develops around this value being inserted into social networks. This social connectedness produces a type of relationship that creates potential benefits in various forms for individuals who are connected, such as valuable information acquisition, financial gain, job creation, education diffusion or other forms of instrumental and emotional support. By including these qualities in our social networks, future benefit for at least some individuals, particularly elderly adults, will be generated (Sum et al. 2008).

The transformations that occur in the physical and cognitive abilities of older adults can cause them to come to depend more seriously on social capital at each of these levels (Cannuscio et al. 2003). A greater level of trust could provide older adults with greater emotional, economic and logistical resources (Pollacka and Knesebeck 2004). An advanced level of social participation might support physical and mental activity, and feelings of security and active engagement might result from more neighbourhood and family connections (Cannuscio et al. 2003; Glass and Balfour 2003). Different social and healthcare programmes planned for older individuals might originate from varying levels of social capital between different origins, which requires more consideration (Kawachi and Berkman 2000).

In the recent years, more research has focused on the relationships between social capital and social stratification or inequality (Putnam 2002; Li et al. 2008). Putnam noted that social capital could conceivably be even less equitably distributed than financial and human capital (Putnam 2002). This more sociological account of social capital rightly sees it as rooted in the social structure and related to the formation of group identities, similar to the arguments of Goldthorpe (1981) regarding the structure of class, in

which interest lies in assessing the relationships between social position and forms of social interaction and cohesion (Hodgkin 2011).

On the other hand, social contributions might depend on factors such as gender, life stage, health status and socioeconomic status (Hodgkin 2011; Li et al. 2008). Socioeconomic factors have been widely acknowledged as important determinants of social outcomes (Tobias et al. 2009; Carroll et al. 2011). For example, there is evidence to suggest a correlation between social capital and education. The level of educational attainment in a society is linked to economic development. Participation in education is also a foundation for building the positive values that characterise social capital, such as reciprocity, trust, acceptance and cooperation (Australian Bureau of Statistics 2002). It is documented that social capital inequalities can arise from capital deficits, which refer to the relative shortage of social capital in one group compared to another (Lin 2002). For example, persons with lower education might have access to a lower quantity and quality of network resources than those with higher education (Moore et al. 2014).

Indeed, there has been evidence showing that, similar to other types of capital, there is an uneven distribution of social capital, not only between elderly adults and younger generation but also among the older population itself, in terms of, age, gender, marital status, income, education, ethnicity and region (Putnam 2000; Edwards and Foley 1998; Stoltz 2003). For example, regarding age differences, younger generations are more educated than older generations. Education can promote social capital accumulation directly, by helping individuals to develop the civic skills and cognitive capacities that facilitate participation in groups and associations (Centre for Educational Research and Innovation 2010). Effective education can assist in reducing problems, such as unemployment, poor health and crime (Australian Bureau of Statistics 2002). Therefore, paying greater attention to this diverse distribution seems crucial.

In Iran, the elderly are treated respectfully by family members and are mostly supported by them. Most of the needs of the majority of Iranian seniors are provided by their families or informal caregivers (Aghajanian and Thompson 2013). These caregivers primarily live with and care for family members, particularly spouses. Otherwise, it is predominantly the responsibility of children, particularly sons, to provide care and support (Mahmoud et al. 2008).

However, there is a disparity in this status according to gender, with women tending to give and receive greater support from sons. In Iran, elderly women are more inclined to maintain stronger mutual relationships with family members and neighbours. Neighbourhood connections are more prevalent in rural areas, which might originate from a greater feeling of

trust. Older women have more neighbourhood, family and friendship connections, and they are out and about more than men.

Unfortunately, in the recent years, there have been some changes in the living arrangements of older adults. Societal factors, perhaps both cultural (such as a strong secular move towards individualism and self-actualisation in Iranian society) and economic, have provided some clues into these changes (Abbasi-Shavazi et al. 2012). It has been reported that almost 0.24 percent of seniors are institutionalised in facilities; thus, more than 99 percent of seniors receive care informally (Amini et al. 2013). However, the numbers have been increasing recently, and families are more willing to meet the needs of elderly people in these centres due to some changes in cultural and family structures (such as reduction in family size). Overall, older adults in Iran have little participation in the community as volunteers or as members of local associations, perhaps because Iranian culture is more traditional, and accessing these types of organisations and social clubs is more complicated for this group. In contrast, older adults in Iran visit religious institutions (such as mosques) frequently, particularly older women. Social capital is a new area of research among older Iranian adults. There have been some studies in this field; however, none of them have studied elderly adults as a population (Khosrojerdi et al. 2012; Khodadady and Zabihi 2011). Most studies conducted among elderly adults in Iran have been concerned with social support, and social capital has been almost ignored (Khalili et al. 2012; Salarvand and Abedi 2008; Pasha et al. 2007; Malek Afzali et al. 2007). However, there has been much research in this area in similar countries, such as Bangladesh, the Republic of Korea and China (Shen et al. 2013; Kim et al. 2007; Nilsson et al. 2006; Norstrand and Xu 2012).

Much research into social capital has been conducted in the U.S. and other western countries, which ignore the cultural context of its conceptualisation. Caution must be applied in comparisons in which the cultural context of social capital is ignored (Harper 2001). Therefore, in this study, a Persian version of a social capital measurement, with a high reliability and validity, was used (Sum et al. 2008; Bagheri Yazdi 2011). This study was designed to provide exploratory research and to establish basic knowledge and a foundation for future research in this emerging field in Iran. It aimed to investigate the distribution of social capital among older adults relative to demographic and socioeconomic differences in the city of Babol, Iran. Due to traditional and cultural contexts, the authors hypothesised that social capital would be high.

STUDY DESIGN

This cross-sectional study was approved by the ethics committee of Babol University of Medical Science, Iran. A quantitative approach was used. Data were collected over a six-month period from older adults aged 60 years old or older in a retirement centre in Babol, in the Mazandaran province of Iran, in 2013. Participation in the study was voluntary and free of charge. The respondents' information was anonymous. The inclusion criteria were being 60 years old or older and willingness to participate in the study. Many methods for data collection were used, including short face-to-face interviews in Babol retirement centre (62 percent of participants), conversations over the participants' home phones (29 percent) or posting the measurements by mail (9 percent). The in-person questionnaire was administered by two trained interviewers (one female and one male) in the Babol retirement centre. At the completion of the sampling, the participants were sent a self-administered questionnaire, which was mailed back in a pre-paid envelope. The participants were sent a reminder if the questionnaire was not received within four weeks. There was no stated time limit for answering the questions in the face-to-face interviews, but the participants completed the questionnaire in an average of ten minutes.

STUDY POPULATION

A total of 320 older adults aged 60 years or older participated in the study. The participants were recruited using the convenience sampling method from the members of the Babol retirement centre. Power analysis, using the University of California, Los Angeles (UCLA) web-based power calculator, indicated that a sample of 150 to 200 would have 80 percent power to detect individual correlations of approximately 0.2, with a two-tailed alpha set at 0.05 (Machin et al. 1997). The participants consisted of 193 men and 127 women with a mean age of 67.03 ± 5.51 years old.

MEASUREMENTS

The questionnaire included items that measured variables relevant to demographic status and social capital. The first part of this section consisted of ten questions intended to provide demographic data, including some specific questions about age, gender, marital status, type of accommodation,

educational level, income, the place where the participants lived, with whom they lived, years of retirement and whether they were active parts of a social association or organisation.

The other part of the questionnaire was the social capital measurement, which was developed by Onyx and Bullen (2000) and consisted of 32 questions answered using a 4-point Likert-type response scale as follows: 1. No, not at all; 2. No, not much; 3. Yes, frequently; and 4. Yes, definitely (Onyx and Bullen 2000). The social capital scale included the following eight dimensions: Participation in Community; Feelings of Trust and Safety; Neighbourhood Connections; Tolerance of Diversity; Value of Life; Family Connections; Pro-activity in Social Contexts; and Work Connections. The Onyx and Bullen scale of social capital was primarily developed in Australia. It was used in Iran by Bagheri Yazdi in 2011 to investigate the relationships between social capital and risk-taking behaviours in undergraduate students. However, it was used for the first time in elderly adults by the authors in a doctoral thesis, to render this scale usable for older adults in the Iranian cultural context. That study was conducted among 192 elderly people older than 60 years old in the city of Sari in Mazandaran province. To translate the social capital measurements from English into Persian, the International Quality of Life Assessment (IQOLA) approach was used. A sample of 192 elderly people completed the Persian version of the questionnaire to determine its item discriminate validity and internal consistency. The criterion validity of the measurements was examined using a geriatric depression scale (5 items) and social health, and general health questionnaires. To examine test-retest reliability, a sample of 20 elderly people completed the questionnaire again two weeks after the first completion. The findings showed that, in 33 cases (86/85 percent), translation was easy. More than 86 percent of the items had good quality scores for the translation; comments from the translators were used to modify items and improve them further. The intercorrelations of the dimensions were more than 0/7. Cronbach's coefficient alpha was calculated to be 0.96 for the overall scale (Eftekharian 2014).

Participation in Community defined participation in a local community (e.g., "Are you an active member of a local organisation or club?"). Feelings of Trust and Safety was defined by questions such as, "Do you agree that most people can be trusted?" Neighbourhood Connections referred to a more informed interaction within the local area (e.g., "Have you visited a neighbour in the past week?"). Family and Friends Connections, as well as Neighbourhood Connections, referred to informal interactions, defined by items such as, "In the past week, how many phone conversations have you had with your friends?" Tolerance of Diversity was

identified by items such as, "Do you enjoy living among people of different lifestyles?" Value of Life was identified by items such as, "Do you feel valued by society?" Pro-activity in Social Context was also defined by questions such as, "If you have a dispute with your neighbours, are you willing to seek mediation?" Finally, the Work Connections questions included items such as, "Do you feel part of the local geographic community where you work?" This dimension was asked of people who were still in paid employment.

The degree of general social capital and dimensions of this scale were calculated based on the sum of the items. The reports showed 0.82 and 0.83 for the Cronbach's alpha reliability coefficient for the Onyx social capital scale (Onyx and Bullen 2000; Sum et al. 2008). The published reliability of the Persian version of this measurement in Iran was a Cronbach's alpha of 0.96 (Eftekharian 2014). In this study, the reliability of the total scale was 0.95, and for the dimensions, it was between 0.7 and 0.93.

STATISTICAL ANALYSIS

The frequencies of the variables were calculated using SPSS software, version 19 for Windows (Chicago, IL, U.S.), and statistical significance was assessed using Spearman's rank order correlation, ANOVA and the independent *t*-test. Hierarchical multiple regressions were applied to explore the predictors of social capital. Regression analysis has two different goals: to predict the dependent variable by using a set of independent variables; and to quantify the relationship of one or more independent variables to dependent variables (Kleinbaum et al. 1998). In this study, both goals were considered. $P < 0.05$ was considered statistically significant.

RESULTS

The demographic results showed that the majority of respondents (92.6 percent) were married (Table 1). Educational achievement was distributed across levels, indicating that 5.7 percent were illiterate and 40.6 percent had received diplomas; 92.6 percent were married. Most of the participants reported levels of income in the moderate range (74.3 percent). Regarding residence, most of the respondents (83.9 percent) lived in the city. Most of the respondents (57.8 percent) lived with their spouses and children, and only three of them lived alone. The average number of years of retirement

was 15.12 years. Only 15.2 percent of the respondents reported being an active part of a social association or organisation.

Table 1: Distribution of demographic variables in the sample.

Variable	Percentage (%)
Age	
60–64	35.2
65–69	33.9
70–74	18.7
75–79	9.1
Over 79	3
Gender	
Male	60.3
Female	39.7
Marital status	
Married/de facto	92.6
Never married	3
Widowed	4.3
Place	
City	83.9
Rural	16.1
Educational level	
Illiterate	5.6
Completed elementary school	15.2
Did not complete high school	36.18
Completed high school	32.17
Graduated college or university	10.85
Income	
Low	77.4
Moderate	22.2
High	0.4
Type of accommodation	
Own home	90.9
Rented home	9.1

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Table 1: (continued)

Variable	Percentage (%)
With whom they live	
Alone	1.3
With spouse	34.8
With spouse and children	57.8
With children	6.1
Member of a social club	
Yes	15.2
No	84.8

Note: The total is less than 100 percent due to missing data.

Table 2 demonstrates that the overall scoring for the 32 items in the eight dimensions of social capital ranged from 2.96 to 1.6 (scores ranged from 1 to 4, with higher scores indicating higher levels of the variable). As the table shows, nearly a third (10 of 32 items) of the respondents' scores were less than two (primarily negative), half of them were related to their participation in the local community. The highest means were related to the following questions: "How many people did you talk to yesterday?" ($M = 2.96$); "Does your local community feel like home?" ($M = 2.78$); "Does your area have a reputation for being a safe place?" ($M = 2.76$); and "In the past week, how many phone conversations have you had with friends?" ($M = 2.67$).

Table 2: Means and standard deviations of social capital components.

	Mean	SD
A. Participation in Community		
Do you help out a local group as a volunteer?	2.45	0.68
Have you attended a local community event in the past six months?	1.7	0.71
Are you an active part of a social association or organisation?	1.77	0.82
Are you on an organising committee for any local group or organisation?	1.84	0.78
In the past three years, have you ever joined local community action to address an emergency?	2.01	0.77

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Table 2: (continued)

	Mean	SD
In the past three years, have you ever participated in a local community project or working bee?	1.89	0.82
Have you ever participated in a project to organise a new service in your area?	1.6	0.65
B. Feelings of Trust and Safety		
Do you feel safe walking down your street after dark?	1.93	0.69
Do you agree that most people can be trusted?	1.93	0.86
If someone's car breaks down outside your house, do you invite them into your home to use the phone?	2.5	0.84
Does your area have a reputation for being a safe place?	2.76	2.09
Does your local community feel like home?	2.78	0.67
If a stranger, someone different, moves into your street, would they be accepted by the neighbours?	2.35	0.73
C. Neighbourhood Connections		
Can you get help from friends when you need it?	2.49	0.77
If you were caring for a child and needed to go out for a while, would you ask a neighbour for help?	2.28	0.82
Have you visited a neighbour in the past week?	2.08	0.69
When you go shopping in your local area, are you likely to run into friends and acquaintances?	1.93	0.69
In the past six months, have you done a favour for a sick neighbour?	2.14	0.76
D. Family Connections		
In the past week, how many phone conversations have you had with friends?	2.67	0.89
How many people did you talk to yesterday?	2.96	2.02
Over the weekend, do you have lunch/dinner with other people outside your household?	2.04	0.68
E. Tolerance of Diversity		
Do you think that multiculturalism makes life in your area better?	2.04	0.66
Do you enjoy living among people of different lifestyles?	1.77	0.65
F. Value of Life		
Do you feel valued by society?	2.17	0.77
If you were to die tomorrow, would you be satisfied with what your life has meant?	1.87	0.71

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Table 2: (continued)

	Mean	SD
G. Social Agency or Proactivity in Social Contexts		
Have you ever picked up other people's rubbish in a public place?	2.2	0.76
Do you go outside your local community to visit your family?	2.54	0.83
If you need information to make a life decision, do you know where to find that information?	2.46	0.82
If you disagreed with what everyone else has agreed on, would you feel free to speak out?	2.37	1.55
If you have a dispute with your neighbours, are you willing to seek mediation?	2.18	0.84
At work, do you take the initiative to do what needs to be done, even if no one asks you?	2.2	0.76
H. Work Connections		
Do you feel a part of the local geographic community where you work?	2.36	0.73

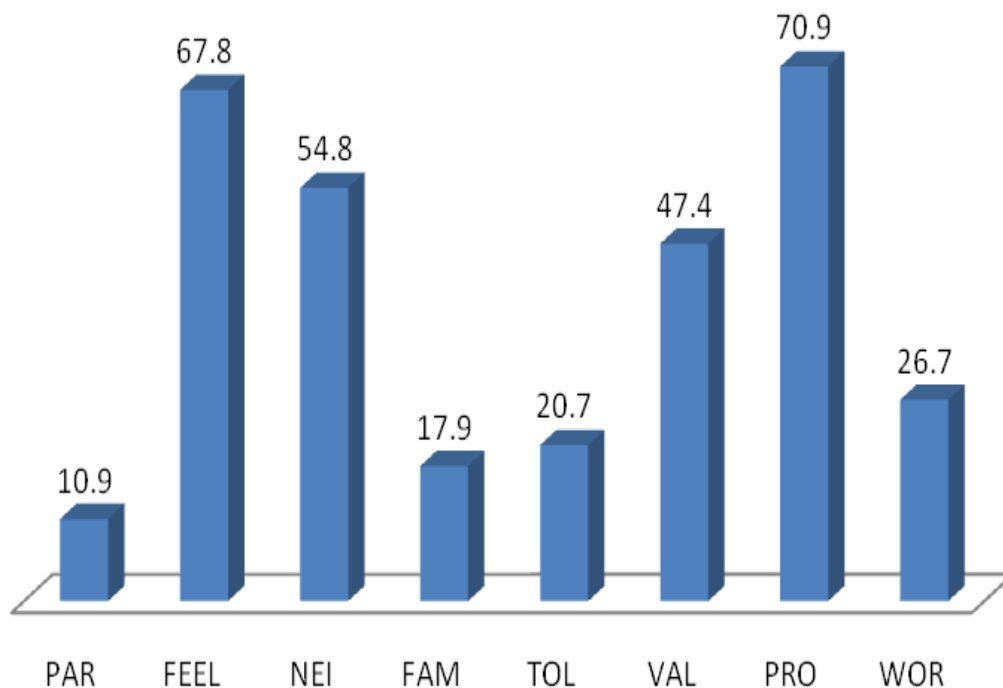


Figure 1: Percentage answering Yes (scores 3–4) to eight dimensions of social capital.

Notes: PAR = Participation in Community; FEEL = Feelings of Trust; NEI = Neighbourhood Connections; FAM = Family Connections; TOL= Tolerance of Diversity; VAL = Value of Life; PRO = Pro-activity in Social Context; and WOR = Work Connections.

The percentages of agreement with the Social Capital dimensions are shown in Figure 1. To create a graph, as illustrated in the figure, participants' responses to social capital questions in each dimension were divided to two scores: No and Yes (answers ranging from 1 to 2 were considered No, and 3 to 4 considered Yes). The graph shows the percentage that responded Yes to these dimensions. The graph shows that the highest degree of social capital reported by the participants was for Pro-activity in a Social Context (70.9 percent), followed by Feelings of Trust (67.8 percent). Only 10.9 percent had appropriate components of Participation in Community.

Spearman's rank correlation revealed a low level of Neighbourhood Connections ($r = -0.194$) and Tolerance of Diversity ($r = -0.155$) among older participants, indicating that participants in the older age bracket for the study tended to have fewer neighbourhood relationships when living among people of different lifestyles. Widowed and separated/divorced seniors had lower levels of Value of Life ($r = -0.166$). Seniors who lived in rural areas reported a higher level of Tolerance of Diversity ($r = 0.144$). Higher levels of education were associated with greater social capital in four dimensions, which were found to be significant for Participation in Community ($r = 0.224$), Neighbourhood Connections ($r = 0.140$), Value of Life ($r = 0.222$) and more Work Connections ($r = 0.185$). The results showed a strong positive link between seniors' levels of income and Value of Life ($r = 0.231$). In terms of years being retired, the findings showed reverse relationships with Neighbourhood Connections ($r = -0.171$) and Tolerance of Diversity ($r = -0.139$). Participants who reported being an active part of a social association or organisation had greater Participation in Community ($r = 0.238$), more Neighbourhood Connections ($r = 0.164$) and Family and Friendship Connections ($r = 0.314$) and lower levels of Tolerance of Diversity ($r = -0.133$). These findings indicated that age and years of being retired showed the most negative relationships with social capital dimensions, meaning that social capital declined. In contrast, being educated presented the largest number (4) of significant positive correlations.

Multiple regression analysis of social capital dimensions and demographic variables is shown in Table 3. Being an active part of a social association or organisation was the only demographic variable that predicted Participation in Community; the variable explained 5 percent of the variance. A combination of three demographic variables predicted Feelings of Trust and Safety: a higher level of education, living in rural areas and being married. The variables explained 9.5 percent of the variance. The results showed that two demographic variables predicted Neighbourhood Connections: a higher level of education and being an active part of a social

association or organisation; the variables accounted for 11 percent of the variance.

Table 3: Spearman's rank correlation between social capital dimensions and sociodemographic characteristics.

Measure	PAR	NEI	TOLE	VAL	FAM	WOR
Age	0.008	-0.194**	-0.155	-0.106	-0.127	-0.097
Marital status	-0.067	-0.115	-0.088	-0.166*	-0.115	-0.119
Place	-0.021	0.045	0.144*	-0.22	-0.048	-0.002
Education	-0.224**	0.140*	-0.063	0.222**	0.004	0.185*
Income	-0.021	0.077	0.115	0.231**	0.071	0.065
YOR	0.077	-0.171**	-0.139*	0.029	-0.103	0.003
Social club	0.238**	0.164*	-0.133*	-0.073	0.314*	-0.121

Notes:

- *PAR = Participation in Community; NEI = Neighbourhood Connections; TOLE = Tolerance of Diversity; VAL = Value of Life; FAM = Family Connections; WOR = Work Connections; and YOR = Years of retirement.*
- *** = Correlation is significant at the 0.01 level (2-tailed).*
- ** = Correlation is significant at the 0.05 level (2-tailed).*

The findings for family and friendship connections showed that this dimension of social capital was also associated with two variables, which accounted for 13.7 percent of the variance: house ownership and being an active part of a social association or organisation. The respondents who lived in their own homes tended to have more Neighbourhood Connections. Pro-activity in Social Context was predicted by a higher level of income (10.9 percent of the variance), and Tolerance of Diversity (accounting for 5.9 percent of the variance) was associated with marital status. Value of Life was significantly associated with a combination of four predictors: gender (being a woman), being married, and having a higher level of education and income. These four variables accounted for 19.9 percent of the variance. Marital status (being married) and education were associated with Work Connections, which accounted for 11 percent of the variance.

Table 4: Multiple regression analysis of social capital dimensions and demographic variables.

Criterion	Significant predictor	β - regression coefficient	P
PAR	Social club	0.201	0.003
			[F = 2.35, df = 12, R2 = 11.5%]
FEEL	Live	0.136	0.028
	Marital status	-0.203	0.012
	Education	0.232	0.002
			[F = 1.95, df = 12, R2 = 9.5%]
NEI	Education	0.165	0.024
	Social club	0.172	0.012
			[F = 1.93, df = 12, R2 = 11%]
FAM	Accommodation	0.136	0.05
	Social club	0.286	0.001
			[F = 2.86, df = 12, R2 = 13.7%]
TOLE	Marital status	-0.171	0.038
	Income	0.187	–
			[F = 1.13, df = 12, R2 = 5.9%]
VAL	Gender	0.147	0.024
	Marital status	-0.151	0.046
	Education	0.237	0.001
	Income	0.358	0.001
			[F = 4.48, df = 12, R2 = 19.9%]
PRO	Income	0.185	0.009
			[F = 2.21, df = 12, R2 = 10.9%]
WOR	Marital status	-0.228	0.004
	Education	0.167	0.023
			[F = 2.27, df = 1, R2 = 11%]

Notes: PAR = Participation in Community; FEEL = Feelings of Trust; NEI = Neighbourhood Connections; FAM = Family Connections; TOLE = Tolerance of Diversity; VAL = Value of Life; PRO = Pro-activity in Social Context; and WOR = Work Connections.

DISCUSSION AND CONCLUSION

This study aimed to examine the concept of social capital and its spread among elderly people. The findings showed overall that older adults participated little in the community as volunteers or parts of a local association; in contrast, pro-activity in a social context and feelings of trust were high. Low levels of participation in the community as volunteers or members of a local organisation in our study might have been due to Iranian culture, which is more traditional and thus, accessing these types of organisations and social clubs might be more complicated for this group. In contrast, older adults in Iran visit religious institutions frequently. This result was somewhat similar to the report of Kim and colleagues, which assessed volunteering among older people in the Republic of Korea. As they reported, approximately six percent of Koreans aged 65 years old and older participated in volunteer programs. Interestingly, participants who identified their religion as Buddhism or Catholicism were more likely to volunteer than those who had no religion (Kim et al. 2007). High levels of pro-activity in a social context and feelings of trust in the older community might also have been due to Iranian culture, which is grounded in religious (Aihara et al. 2009) beliefs that trusting and helping others, visiting family members and feeling free to speak out in disagreement with opinions are recommended by religious leaders. Gray, in a study performed in the U.K., reported a reduction in participation of those of advanced age in social clubs, except for religious organisations (Gray 2009). In other countries, the findings have differed: in a study conducted in Sweden, the researchers found that most of the older participants, despite the ageing process, attempted to remain active and connected to the community (Gunnarsson 2009).

The strong relationships found between social capital dimensions and sociodemographic factors showed the socioeconomic epidemiology of social capital. Widowed seniors, those who lived in urban areas and those with poorer educations felt low levels of safety in their local communities. People might have greater trust in those with whom they have had broader communication, and rural areas have this characteristic. Indeed, hope of continuous relationships in the future can facilitate the development of trust (Putnam and Lewis 2003; Coleman 1990). Alesina and La Ferrara reported that three main issues could contribute to promoting trust: personal traits, such as education and income; being a member of groups typically discriminated against, in particular women and marginal groups; and features of the community; for example, more racially diverse communities have lower levels of trust (Alesina et al. 2002).

Overall, the level of feelings of trust and safety in the older population of our study was high. Barr and Russell, in their study of older residents of a coastal resort in Australia, reported that 64 percent of older women did not feel safe walking down their streets after dark (Barr and Russell 2007); however, more than two thirds (66.7 percent) of our respondents reported a feeling of safety. Onyx and Bullen also reported that women had poorer feelings of safety in their local communities (Onyx and Bullen 2000). In our results, gender predicted value of life, indicating that life was more valued for women than for men, and women felt more valued by society and more satisfied with their lives. As reported in the Study Population section, all of our subjects were retired teachers and all of the women were educated, which might have affected these feelings. Aihara and colleagues reported greater cognitive social capital among men in a study. They concluded that contributions to local organisations and having healthy behaviours were linked to cognitive social capital, which is significant for successful ageing (Aihara et al. 2009).

Participants from rural areas reported more feelings of trust and neighbourhood connections, rather than participation in the community, which supported Onyx and Bullen's findings. Heenan, in a study performed in a countryside area of Northern Ireland, reported that there was evidence of strong mutual relationships between older people and their neighbours (Heenan 2009). Hodgkin attempted to investigate the level of social capital in a large rural community. The results showed that age was a significant determinant of people's activities. Older people, predominantly those who were retired, engaged in more community participation and social activities, such as volunteer groups, social clubs and church groups (Hodgkin 2012).

Higher levels of education and income were correlated with most of the social capital dimensions. This result was supported by some previous research (Veenstra 2000; Shen et al. 2013; Nilsson et al. 2006; O'Brien et al. 2004; Narayan and Pritchett 1999; Cramm et al. 2013). It has been reported that groups such as refugees, deprived people and those with less education might feel socially isolated as a result of having little or no social capital (Putnam and Lewis 2003). In a model developed by Stoltz (2003), it was also suggested that race and income affect civic engagement through two key elements of social capital: trust and group membership.

The findings of this study showed that, like other kinds of capital, there is an irregular distribution of social capital among older adults, in terms of gender, marital status, income, education and locality, which can indirectly affect civic engagement and social capital.

The limitations of this study were related to its sample. This study was performed in a small city of Iran, although it is the largest city in

Mazandaran, which is a province with a rich culture and traditional context that could be considered a fairly representative sample of elderly adults of Iran. However, future research on this topic in a large metropolitan area is recommended. Despite this limitation, this study was the first to examine social capital among older adults in Iran.

NOTES

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