Ageism and Social Integration of Older Adults in Their Neighborhoods in Israel

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Purpose: The article aims to examine the extent to which ageism is connected with the social integration of older adults in their neighborhoods and to identify factors that explain social integration. **Design and Methods:** A convenience sample that included 300 older adults aged 65 and older and 300 younger people under the age of 65 who resided in 3 neighborhoods in Tel-Aviv with varied socioeconomic status were interviewed. Kogan's Attitudes toward Old People scale was used to probe ageism. Social integration index included 3 dimensions: frequency of participation in activities in the neighborhood, familiarity with neighbors, and sense of neighborhood. Hierarchical regression analyses examined 3 groups of independent variables: older adults' sociodemographic characteristics, their perceived health and outdoor mobility, and neighborhoods' characteristics including level of ageism. **Results:** Neighborhoods varied by levels of ageism and social integration. Higher level of social integration of older neighborhoods' residents was explained by a combination of factors: younger age, better self-rated health, and fewer limitations of outdoor mobility, lower levels of ageism reported by a sample of younger respondents, and higher socioeconomic status of the neighborhood. **Implications:** To enable better social integration, intergeneration programs should be developed to decrease ageism, and in order to make communities more age-friendly, there is need to facilitate accessibility to services and public spaces.

As life expectancy and the lifespan increase steadily worldwide, older people live longer in their communities and neighborhoods. This has raised the interest in environmental gerontology that deals with aging in place (Wahl & Weisman, 2003), including the social integration of older persons in their environments. One of the earliest studies conducted in this field (Rowles, 1978) found that social integration of older people was connected with a variety of factors including the characteristics of the geographic environment (e.g., residence neighborhood), the duration of their living in their neighborhood, their sense of belonging, and their self-image.

Social integration is a key issue in old age (Levy & Langer, 1994) and an important factor for successful aging (Rowe & Kahn, 1998). It was found to promote life satisfaction (Steinkamp & Kelly, 1987), alleviate the devastating sense of loneliness (Rote, Hill, & Ellinson, 2012; Russell, 2009), and improve physical and mental health (Cornwell & Waite, 2009).

Despite the importance of aging in place, there have been only a few studies that examined how to create environments that are age-friendly (Gitlin, 2003; Kendig, 2003). This notion is based on the ecological approach, whereby the sociophysical

environment affects aging in place and quality of life (Byrnes, Lichtenberg, & Lysack, 2006). To age in place, it is necessary to provide opportunities for social involvement and interaction (Lehning, Scharlach, & Dal Santo, 2010). Based on these ideas, the World Health Organization (WHO, 2007) has developed the project of age-friendly cities whereby older people are actively involved and socially integrated in their communities. Thus, communities can benefit from the contribution of older people and change the image of older people from a social burden to a social asset or social capital. In other words, gerontological geography studies have mainly focused on the environmental components that are connected with the social integration of older adults. However, to the best of our knowledge, no previous studies have examined the extent to which ageism is associated with social integration of older people in their neighborhoods. Therefore, the goal of this study is to examine the extent to which ageism is connected with the social integration of older people in the neighborhoods where they live.

Social Integration in Old Age

The concept "social integration" is often used interchangeably with social support, social networks, social contacts, and social inclusion as opposed to social segregation and isolation. One definition of social integration refers to the degree to which an individual is involved in social exchanges with others, whether it is the family, social networks, or in their communities (Hooyman & Kiyak, 2008) and feels belonging and part of it. Anant (1966, p. 21) defined sense of belonging as a "sense of personal involvement in a social system so that persons feel themselves to be an indispensable and integral part of the system." It implies recognition and acceptance of a member by other members in a group. Steinkamp and Kelly (1987) equated subjective social integration with feelings of belonging and being loved, and Lindgren, Pass, and Sime (1990) concluded that social support allows people to believe that they are loved and valued, and belong to a network of mutual obligation. Thus, the concept of social integration consists of two dimensions that are interrelated: an effective and evaluative sense of belonging to the community, and behavior that is reflected in active involvement of older people in various aspects of community life, including issues of access and their links within their local community. In other words, sense of belonging can be reflected through behavioral referents such as membership in groups and social exchange. Studies on concepts such as social support and reciprocity suggested that individuals' perceptions of their interactions and relationships may be more powerful determinants of social integration than actual social exchanges (Antonucci & Israel, 1986). Positive interpersonal relationships can affect individual members' sense of belonging to a particular group (Hurtado, Meader, Ziskin, Kamimura, & Greene, 2002).

Social exclusion, as opposed to social integration, refers to the marginalization of an individual or a group from mainstream society due to their lower socioeconomic status. Walker and Walker (1997) say that social exclusion refers to the dynamic process of being shut out from any of the social, economic, political, or cultural systems, which determine the social integration of a person in society. Thus, social exclusion tends to be higher in poorer regions (Hoff, 2008).

Social integration is operationally reflected through social relationships with friends and family, cultural and leisure activities (e.g., going to cinema or theater), civic activities (e.g., voluntary work), and use of services (Ager & Strang, 2004; Barnes, Blom, Cox, & Lessof, 2006; Cavalli, Bickel, & Lalive d'Epinay, 2007; Toepoel, 2011). Similarly, Cornwell, Laumann, and Schumm (2008) identified four dimensions of integration in the community: frequency of neighborly socializing, religious participation, volunteering, and organized group involvement. They found that people's embeddedness in social networks and the extent to which they contribute to or draw upon the social capital of their neighborhoods reflect their social integration within the community. In addition, a study conducted in the United Kingdom (Scharf, Phillips, Kingston, & Smith, 2000) found that social integration was enhanced by good public and religious services or by the presence of a range of voluntary organizations, including clubs or places where older people could meet and experience an integrative role in their neighborhood.

Determinants of social integration are multiple and operate at different and interrelated levels. These include age, which was found to be related to social participation and network size (Cornwell et al., 2008); health and functional status (House, Umberson, & Landis, 1988), including outdoor activities (Kweon, Sullivan, & Wiley, 1998); personal, interpersonal, and situational variables (Gracia & Herrero, 2004); length of residence (Brown, Geertsen, & Krannics, 1989); as well

as negative attitudes toward older people that can challenge their social integration in their communities. This suggests that those who are younger, healthier, functionally independent, and live longer in their neighborhoods will be more socially integrated in them.

In the field of gerontology, the social integration of older people in their neighborhoods has been insufficiently addressed and almost no attention has been paid to social integration as a dependent variable (Gracia & Herrero, 2004).

Ageism and Social Integration

The social integration of older people in society, the labor market, the family, and social networks have been the focus of many studies (de Jong Gierveld & Hagestad, 2006; Dykstra & Hagestad, 2007). Social integration is also allied with ageist stereotypes, which can encourage marginalization of older people (Butler, 1969; Basford & Thorpe, 2004; Comer, Britain, & Bond, 2007) and can hinder their social integration in society. The Prejudice Hypothesis (Allport, 1958) asserts that stereotypes and negative attitudes of one social group toward another group, based on age, gender, or race, can cause social segregation (Quillian,1995). Ageism is a systematic process of stereotyping older people just because of their older age (Butler, 1969). Ageism can be manifested in discrimination on the one hand and abuse and violence toward older people on the other (Cathalifaud, Thumala, Urquiza, & Ojeda, 2008; de Jong Gierveld & Hagestad, 2006; Palmore, 2001, 2005). Ageism is prevalent among various age groups (Bodner & Lazar, 2008; Loretto, Duncan, & White, 2000), even in traditional societies, like China, where respect for older people used to be a very important social value (Cuddy, Norton, & Fiske, 2005; Fan, 2007).

Negative attitudes toward other groups stem from the view that certain prerogatives of the social group in question are threatened by these groups (Quillian, 1995). Thus, one of the theories that can help to understand ageism is the terror management theory, which asserts that younger adults attempt to protect the "self" by applying stereotypes to "other," older adults—distancing themselves from the threat of becoming frail and dying (Bodner, 2009; Nelson, 2005). According to this theory, older people are a reminder to the young of their mortality; therefore, they become a salient symbol of a feared future self. Thus, ageism can inhibit people's objectivity and subsequently

influence human interactions at the micro (individual/family), meso (organization/community), or macro (government/societal) levels.

In addition, negative images of aging and ageism can contribute to older adults' social exclusion. Those with ageist attitudes believe that older people have little to contribute to society and therefore tend to avoid this societal group. Consequently, older people are excluded in their communities and their social involvement is eliminated (Barnes et al., 2006). Ageism is also expected to flourish in environments where cross-age interactions are limited, whereas increased social integration can reduce age stereotypes and prejudices (Uhlenberg, 2000).

A key weapon against stereotypes and prejudices is intergroup contact, ongoing interaction, familiarity, and personal knowledge, which allow individuals the opportunity to challenge prejudices and stereotypes (Pettigrew, 1998). From this perspective, spatial proximity is an ecological unity that can produce the possibility of face-to-face interaction and promote the establishment of social relationships. Positive interpersonal relationships between different persons and/or racial groups play an important role in reducing prejudice (Miller, 2002), suggesting that stable, lasting interactions in age-heterogeneous environments can combat ageism. For example, participation in political activity and civic engagement can combat ageism and promote social integration (Henkin & Zapf, 2006; Postel, Write, Beresford, 2005). Studies that examined the association between prejudices and social integration found that they varied by quarters and neighborhoods in the same cities (Dunn & McDonald, 2001; Forrest & Dunn, 2007; Schaefer, 1975). Furthermore, it is argued that those with greater economic power, higher socioeconomic status, or within communities where they have greater social capital may experience less ageism (Calasanti, 2008; Palmore, 2001) that can in turn increase social integration. In addition, greater percentages of minority groups can reduce prejudices because more opportunities for intergroup contacts are available and thus reduce prejudices (Wagner, Christ, Pettigrew, Stellmacher, & Wolf, 2006). This research focuses on specific differences between neighborhoods that increase or decrease ageism and social integration.

Ensuring and enabling supportive environments for older adults requires attention to elimination of ageism. However, Hagestad and Uhlenberg (2005) argue that the connection between ageism and social integration has been a neglected

issue in social research. They contend that the institutional age segregation in modern societies determines chronological age as a criterion for social participation. Older people are excluded from the labor market and are expected to live retired lives, which can lead to social exclusion and this in turn can produce ageism. Indeed, Coleman (1982) argues that ageism can be both a cause and a result of social exclusion, suggesting a cyclical process where one fuels the other. In other words, older adults are likely to experience social exclusion due to ageism that can result in further social exclusion in their spatial environment, and can undermine their quality of life. However, in aging neighborhoods, there is a greater potential for younger people to meet and interact with older adults (Fitzpatrick & Logan, 1985), although a neighborhood's age composition and its impact on social integration has been barely examined. Therefore, little is known about current levels of age integration (Hagestad & Uhlenberg, 2005). This study focuses on this issue.

Drawing from these ideas, this study aims to gain a better understanding of the social integration of older adults in their community by exploring ageism as well as other variables as determinants of social integration in the community. Specifically, it is hypothesized that in neighborhoods characterized by lesser ageism among the younger inhabitants, the older inhabitants will report better social integration compared with those neighborhoods where ageism is more prevalent.

Methods

Sample

The study included three neighborhoods in Tel-Aviv, which consists of about 400,000 inhabitants and includes 64 neighborhoods/quarters. The choice of neighborhoods is intended to provide a broad spectrum of living characteristics, which allows for a wider examination of the role played by the urban environment in the social integration of old people. Taking into account that ageism is connected with socioeconomic status (Calasanti, 2008; Palmore, 2001), three neighborhoods reflecting a variety of socioeconomic status in different locations in the city were chosen, with the north being the more affluent part, the south being the poorest, and the southeast having a moderate to low socioeconomic level (Israel Central Bureau of Statistics, 2008). The chosen neighborhoods also have different proportions of older inhabitants,

linked to the socioeconomic grading, with the most affluent neighborhood having the largest proportion of old people as follows:

Neighborhood A was established about 68 years ago, is located in the southeastern region of the city, and has about 16,000 inhabitants, of whom 19% are over the age of 65; 51.7% are women, 46.7% are married, and 49.2% of those over the age of 65 live alone. The socioeconomics of the neighborhood is moderate to low. For example, the rate of those with 16 years of education and over is 13.6% and the proportion of people who receive Supplement Security Income (SSI) from the National Insurance Institute is 17.4% (Municipality of Tel Aviv, 2011). There are 5 service centers for older people (e.g., adult day care centers, senior citizen clubs), 9 health care clinics, 16 parks/public gardens, a library, an auditorium, a shopping center, and 3 post offices; there are 21 bus lines.

Neighborhood B was established about 72 years ago and has about 7,000 inhabitants, of whom 14.3% are over the age of 65; 52.3% are women, 50.8% are married, and 35.8% of those over the age of 65 live alone. The socioeconomics of the neighborhood is low. For example, the rate of those with 16 years of education and over is 12.8% and the proportion of people who receive SSI is 28.4% (Municipality of Tel Aviv, 2011). There are 2 service centers for older people (e.g., a senior citizen club and a multiservice center), 2 community centers, 2 health care clinics, 10 parks/public gardens, a library, and an auditorium; there are 11 bus lines.

Neighborhood C was established about 62 years ago, and has about 21,500 inhabitants, of whom 22.5% are over the age of 65; 54.3% are women, 41.4% are married, and 50.8% of those over the age of 65 live alone. The socioeconomics of the neighborhood is high. For example, the rate of those with 16 years of education and over is 49.2% and the proportion of older people who receive SSI is only 3%, suggesting the highest proportion of inhabitants with high education and the lowest proportion of older people with low income compared with the other two neighborhoods (Municipality of Tel Aviv, 2011). There are 7 service centers for older people (e.g., senior citizen clubs), 7 community centers, 18 health care clinics, 25 parks/public

gardens, 2 libraries, 3 auditoriums, 6 post offices, 5 museums, a university, a theater, and 2 big shopping centers; there are 27 bus lines.

Thus, the sample offers three different environments for testing the relations between ageism and social integration.

A convenience sample that included two groups of participants was selected: older adults over the age of 65 and younger adults aged 18–64. In each neighborhood, 100 older adults and 100 younger adults were selected; all together 300 younger adults and 300 older adults participated in the study. Inclusion criteria included proficiency in Hebrew, inhabitant of the neighborhood for at least 3 months, and mobile. Recruitment of respondents was made by approaching people in public spaces in the neighborhood (e.g., parks, shopping centers, health clinics, senior citizen clubs) where they visited or were present. In Neighborhood A, 28% of the younger respondents were interviewed on streets, 22% in health clinics, 30% in shopping centers, 18% in post offices, and 2% in kindergartens. The older respondents were interviewed: 35% in senior citizen clubs, 33% in parks, 15% on the streets, 13% in shopping centers, and 4% in health clinics. In Neighborhood B, 97% were interviewed on the streets and 3% in restaurants. The older respondents were interviewed: 22% in senior citizen clubs, 40% in parks, and 38% on the streets. In Neighborhood C, 73% were interviewed on streets, 14% in parks, 9% in shopping centers, and 4% in post offices. The older respondents were interviewed: 56% in senior citizen clubs, 25% in parks, 12% on the streets, 2% in shopping centers, and 5% in country clubs. An experienced interviewer applied to people that she met and asked them if they would like to participate in a study on attitudes and social involvement in their neighborhoods. If they gave their consent, she asked them their age and accordingly she explained in more detail the goals of the study (e.g., their social involvement in their neighborhood if they were over 65 and their attitudes toward the older people residing in their neighborhood if they were under 65). Then they were given a questionnaire and asked to complete it on site. The study underwent an institutional board review and was approved by the ethics committee of the University.

Measures

The outcome variable was social integration. The measure of social integration included three dimensions: (a) Frequency of participation in activities in the neighborhood. This included participation in a variety of activities of which four were drawn from Townsend's (1996) measure that relates to social interaction in the community (e.g., going to the library, voluntary work, walking in the park) and six were drawn from House, Robbins, and Metzner (1982), who examined social interaction and activities. Example items included: "On the average, how often have you done each of these things in your neighborhood in the last month: (1) visiting with friends, neighbors; (2) visiting with relatives; (3) going to the movies, concerts, plays; (4) attending meetings; (5) going to classes or lectures." We added two items that related to how often respondents visited a senior citizen club and participated in wellness sport activities for older people in their neighborhoods. Scores for each item ranged from 1 (*never*) to 5 (*at least once a week*). Scores were summed and ranged from 12 to 60 with higher scores indicating higher levels of participation in the neighborhood. Internal consistency (Cronbach's alpha) for this dimension was moderate (ά = .58). (b) Familiarity with neighbors. This dimension included two items that were drawn from Townsend's scale (e.g., "How many names do you know of your neighbors living in your building or in a nearby building?") and two more items were added by the researchers (e.g., "How many of your neighbors do you visit at their homes at least once a month?" and "How many neighbors are close friends of yours?"). For each item, scores ranged from 1 (*nobody*) to 5 (*11–15 neighbors*). Scores were summed with higher scores indicating more familiarity with neighbors. Internal consistency (Cronbach's alpha) for this dimension was moderate (ά = .73). (c) The sense of neighborhood scale (Young, Russell, & Powers, 2004), which includes seven items was used (e.g., "I have a lot in common with people in my neighborhood" and "I like living where I live"). We removed two items ("I generally trust my neighbors to look out for my property" and "I would be really sorry if I had to move away from the people in my neighborhood") because in the pretest respondents had difficulties in answering these two questions. Scores ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Likert-type and total scores ranged from 5 to 25 with higher scores indicating higher levels of sense of neighborhood. Young and colleagues (2004) reported that the sense of neighborhood score had good face validity. Internal consistency (Cronbach's alpha) in

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this study was reasonable (ά = .79). Correlation coefficients between the three dimensions were significantly positive (participation and familiarity was $r = .29$, $p < .001$; participation and sense of neighborhood was $r = .21$, $p < .001$; and familiarity and sense of neighborhood was $r = .37$, $p < .001$). Thus, the total social integration scale included 21 items and internal consistency (Cronbach's alpha) was reasonable (ά = .81). Scores for the entire measure of social integration were calculated with higher scores indicating higher levels of social integration.

Independent Variables

Ageism. — Kogan's (1961) Attitudes toward Old People scale was used. The scale includes 17 pairs of statements: 17 positive and 17 negative. Scores for each item range from 1 (*completely disagree*) to 6 (*completely agree*) on a Likert-type scale. After reversing the negative items, scores were calculated and ranged from 34 to 204. The measure was translated into Hebrew and was used in previous studies (Blinded for review & Lev-Ran, 2006). In this study, Cronbach's alpha was high (ά = .89). For each neighborhood, an ageism mean score was calculated and ranked and coded: 1 = *low ageism*, 2 = *moderate*, and 3 = *high ageism*.

Characteristics of Neighborhoods. — These included socioeconomic status (coded 1 = *moderate to poor*, 2 = *moderate*, and 3 = *high*), and percentage of older inhabitants (1 = *low*, 2 = *moderate*, and 3 = *high*). Because these two variables coincided by neighborhood, we coded the neighborhood according to their socioeconomic status and the percentage of older people. For example, because Neighborhood B was the lowest in terms of socioeconomic status and had the lowest percentage of older people, it was coded 3, whereas Neighborhood C was coded 1 because it had the highest socioeconomic status with the highest percentage of older people. A mean score of ageism was calculated for each neighborhood based on the younger adults' group responses in each neighborhood.

Self-Rated Health and Outdoor Mobility. — The older respondents were asked one question that related to their health status ("How is your

health?") with scores ranging from 1 (*very poor*) to 5 (*very good*). One question related to outdoor mobility, which reflects ability to access and use services and participation in community activities ("To what extent do you have difficulties with going out of your home?") with scores ranging from 1 = *I go out very seldom* to 4 = *I have no problems with outdoor mobility* (recoded 1 = *no difficulties* and 0 = *have difficulties*).

Covariates. — These included sociodemographic characteristics of the older respondents: gender, age, marital status (recoded 1 = *married* and 0 = *unmarried*), education, length of living in the neighborhood, living arrangements (coded 1 = *alone* and 2 = *otherwise*), and ethnicity (recoded 1 = *born in Israel or in Europe-America* and 0 = *born in Asia-Africa*).

Data Collection

Prior to the data collection, a pretest was conducted with 10 older adults and 10 younger adults who were asked to complete questionnaires. Based on their responses and a discussion with each of them on the difficulties they had with specific questions (e.g., some questions were unclear or irrelevant), the questionnaire was modified accordingly. Two structured questionnaires were used: one for older adults and one for younger adults. For the younger adults, the questionnaire included two parts: the ageism scale and personal details (e.g., sociodemographic characteristics, duration of living in the neighborhood). For the older adults, the questionnaire included two parts: the scales that probe social integration and personal details (e.g., sociodemographic characteristics, health status, outdoor mobility, duration of living in the neighborhood). When a respondent agreed to be interviewed, he or she was given a questionnaire and asked to complete it on site. Thus, interviews with the older adults were conducted in the following places: 4 in clinics, 65 on streets, 14 in shopping centers, 113 in senior citizen clubs, 97 in parks/public gardens, 1 in a kindergarten, 5 in sport centers, and 1 in a restaurant. Interviews with the younger adults were conducted in the following places: 198 on the streets, 14 in parks/public gardens, 22 in health clinics, 39 in shopping centers, 22 in post offices, 3 in restaurants, and 2 in schools. Data collection

was performed on different days of the week and at different hours of the day between September 2010 and March 2011.

Statistical Analyses

Data were processed using SPSS software package version 18. In the first stage, univariate analyses were performed to describe the sociodemographic characteristics of each of the two groups of respondents. In addition, internal consistencies (Cronbach's alpha) of the scales were calculated. Next, bivariate analyses were performed to examine differences between neighborhoods (one-way analysis of variance) and connections between the independent and dependent variables (Pearson correlation coefficient and χ^2). Finally, a hierarchical regression analysis was performed to examine the factors that best explain social integration. To examine the contribution of each group of variables to the variance in the outcome variable, the independent variables were entered in three steps: first, the sociodemographic characteristics; next, perceived health and mobility; and finally, neighborhood characteristics, including mean scores for ageism.

Results

Table 1 presents the sociodemographic characteristics of the older respondents by neighborhood. The findings show that there were no significant differences between the older respondents in the three neighborhoods in terms of gender, marital status, and years of education, but there were significant differences in terms of age, living arrangements, length of residence in the neighborhood, and self-rated health: Those who lived in Neighborhood C were older respondents, more of them were born in European/American countries, and their self-rated health was better compared with that reported by the participants in the other two neighborhoods. Yet, in Neighborhood B, fewer of the older respondents lived alone and their average length of residence in the neighborhood was shorter compared with their counterparts in neighborhoods A and C. Those who lived in Neighborhood B reported poorer health compared with those in the other two neighborhoods, but those in Neighborhood A were more mobile compared with those in the other two neighborhoods and these differences were significant as well ($\chi^2 = 5.99$, $p < .05$).

Table 2 presents the sociodemographic characteristics of the younger group of respondents by neighborhood. The findings show that they did not significantly differ by age and length of residence in their neighborhoods. Yet, they significantly differed by level of education; those who lived in Neighborhood C had the highest level of education, whereas those who lived in Neighborhood B had the lowest level of education ($F = 26.12$, $p < .001$). In addition, the respondents significantly differed in percentages of women who were interviewed (68%, 36%, and 73%, respectively), suggesting that in Neighborhood B significantly more men than women were interviewed compared with the other two neighborhoods, and this difference was significant ($X^2 = 33.32$, $p < .001$). In Neighborhood B, fewer women and married people were interviewed, but more people who lived alone compared with those in the other two neighborhoods and these differences were significant.

The three neighborhoods differed in terms of level of ageism and social integration; the highest level of ageism was found in Neighborhood B and the lowest in Neighborhood C ($M = 100.69$, $SD = 20.16$; $M = 94.09$, $SD = 17.58$; and $M = 92.07$, $SD = 19.74$, respectively) and these difference were significant ($F = 5.49$, $p < .01$). Similar findings were obtained for social integration: the lowest level of social integration was found in Neighborhood B compared with neighborhoods A and C, and the highest in Neighborhood C ($M = 45.18$, $SD = 9.65$; $M = 51.39$, $SD = 9.96$; and $M = 50.05$, $SD = 10.09$, respectively); these differences were significant ($F = 10.35$, $p < .001$).

Table 3 presents the regression analysis of factors explaining social integration of the older people in their neighborhoods. The findings show that in the first step, age, marital status, and living arrangements were significant in explaining social integration. This suggests that those who are younger, married, and did not live alone were more socially integrated in their neighborhoods. The variables in this step explained 10% of the variance in the outcome variable. In the second step, age, self-rated health, and outdoor mobility were significant in explaining social integration. Self-rated health together with outdoor mobility added 12% to the variance in the dependent variable. This suggests that younger age, better health, and no difficulties with outdoor mobility were significantly connected with higher levels of social integration. Finally, in the third step, age, self-rated health, outdoor mobility, ageism, and characteristics of the neighborhood were significant in explaining social

Table 1. Sociodemographic Characteristics of the Older Respondents by Neighborhoods

Variable	Neighborhood A			Neighborhood B			Neighborhood C			F/χ^2
	%	M	SD	%	M	SD	%	M	SD	
Gender										0.8
Women	66.0			69.0			63.0			
Age		78.07	7.36		75.88	7.86		79.94	7.82	6.99*
Education										7.09
1–8 years	37.4			35.5			22.3			
9–12	38.5			30.1			43.4			
13+	24.1			34.4			34.3			
Marital status										1.77
Married	36.4			44.0			37.0			
Widowed	53.5			49.0			54.0			
Single/divorced	10.1			7.0			9.0			
Living arrangement										17.23***
Alone	49.0			25.0			51.0			
Length of residence in the neighborhood		33.26	19.87		23.47	14.78		34.0	21.2	9.74***
Place of birth										29.18***
Asia/Africa	43.9			44.2			17.0			
Europe/America	35.7			48.4			55.0			
Israel	20.4			7.4			28.0			
Self-rated health										16.13*
Very good	13.0			8.0			23.0			
Moderate	41.0			34.0			34.0			
Poor	46.0			58.0			43.0			
Outdoor mobility: no mobility problems	72.0			58.0			57.0			5.99*

Note: *p < .05. ***p < .001.

Table 2. Sociodemographic Characteristics of the Younger Respondents by Neighborhoods

Variable	Neighborhood A			Neighborhood B			Neighborhood C			F/χ^2
	%	M	SD	%	M	SD	%	M	SD	
Gender										33.22**
Women	68.0			36.0			73.0			
Age		33.51	8.22		33.24	11.63		30.99	11.86	1.68
Education		14.56	2.46		12.26	2.58		14.82	3.14	26.12**
Marital status										20.89***
Married	48.0			26.5			31.0			
Living arrangement										11.29***
Alone	22.0			35.0			15.0			
Length of residence in the neighborhood		11.04	11.54		13.06	14.80		10.64	11.25	1.00

Note: **p < .001. ***p < .01.

integration. Ageism and neighborhood characteristics added 5% to the outcome variable. This suggests that younger age, improved health, mobility independence, lower levels of ageism, and a higher socioeconomic status/higher proportion of older people in the neighborhood were connected with higher levels of social integration. Altogether the variables included in the equation explained 27% of the variance in social integration.

Discussion

The purpose of this study was to examine levels of ageism in three different neighborhoods in Tel-Aviv, and to examine the extent to which ageism and other personal and social factors are connected with the social integration of older people in their neighborhoods. The findings showed that the levels of ageism and social integration varied

Table 3. Regression Analysis of Factors Explaining Social Integration

Variable	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
Age	−0.27	0.08	−.21*	−0.11	0.08	−.21*	−0.18	0.08	−.14**
Gender	0.48	1.39	.02	0.47	1.30	.02	0.86	1.27	.04
Education	0.27	0.16	.11	0.12	0.15	.05	0.13	0.15	.05
Marital status	3.30	1.65	.16**	2.19	1.56	.11	1.76	1.53	.09
Ethnicity	−2.03	1.45	−.09	−1.84	1.36	−.08	−2.55	1.35	−.16
Living arrangement	−3.64	1.53	−.18**	−2.74	1.44	−.13	−1.50	1.45	−.07
Length of residence	0.02	0.03	.03	0.01	0.03	.02	−0.02	0.03	−.03
Self-rated health				2.98	0.69	.26*	2.76	0.67	.24*
Outdoor mobility				4.39	1.42	.21***	3.42	1.41	.16**
Ageism[a]							−3.42	0.86	−.28*
Neighborhood[b]							−2.17	0.81	−.17***
Adj. R^2		.10			.22			.27	
F		3.97***			7.98***			8.38***	

[a]Negative values mean lower levels of ageism.
[b]Negative values means neighborhood with highest socioeconomic status.
*$p < .001$. **$p < .05$. ***$p < .01$.

by neighborhood, suggesting an apparent connection between the two variables. Furthermore, the regression analysis showed that a combination of personal, health, and functional factors; level of ageism; and neighborhood characteristics were significant in explaining social integration of older people in their residence environment. That is, poor health and limited mobility, together with older age that is inherently connected with poorer health and functional status, can hinder social integration. This is consistent with previous studies that have shown that poor health and functional status were connected with poor social relations and social integration (Avlund, Lund, Holstein, & Due, 2004; Avlund et al., 2004; Brown et al., 2009; Christensen, 2010; Lang et al., 2008).

The findings also show that neighborhood characteristics, including percentage of older people in the neighborhood and the general socioeconomic status of the neighborhood, were found to play a role with regard to social integration. Availability of services and their affordability might be connected with social integration. This suggests that in richer neighborhoods where there is a greater variety of services, accessibility to them is easier and people can afford to use them, whereas in deprived neighborhoods, availability of services might be sparser and people may not have the economic resources to use them. Lack of economic resources can reduce service use and participation in activities and can cause people to feel isolated, lonely, and alienated in their communities, which is reflected

in less familiarity with their neighbors, fewer social relationships, and a reduced sense of belonging to their communities (Scharf & de Jong Gierveld 2008; Scharf, Phillips, Smith, & Kingston, 2002). These are in line with previous studies that have shown that accessibility and availability of services can facilitate social integration (Leyden, 2003; Perez, Mayoralas, Rivera, & Abuin, 2001; Rowles, 1978; Simon, Walsh, Regnier, & Krauss, 1992; Turel, Yigit, & Altug, 2007) or enable more frequent participation in activities (Sugiyama, Thompson, & Alves, 2009; Valdemarsson, Jernryd, & Iwarsson, 2005). In addition, a higher percentage of older people in the neighborhood can generate more options for social interaction with their peer age group and thus increase social integration. These findings, however, are in line with the ecological approach (Iwarsson, 2005; Kahana, Lovegreen, Kahana, & Kahana, 2003; Lawton 1980; Lawton & Nahemow, 1973), according to which social integration is dependent not only on the functional and health limitations of older adults but also on the spatial environment where they live. These are also preconditions to creating age-friendly environments to integrate older people in the mainstream of the social life (Alley, Liebig, Pynoos, Banerjee, & Choi, 2007; WHO, 2007). Yet, because the proportion of older inhabitants and socioeconomic status of the neighborhood coincided, it is difficult to know which of these two variables is more crucial for social integration. Therefore, more studies that will include a diversity of neighborhoods by

socioeconomic status and by proportions of older inhabitants can provide better insight on this issue.

Regarding ageism, to the best of our knowledge, no previous studies examined the association between ageism and the social integration of older people in their neighborhoods. Previous studies (Ihlanfelt & Skafidi, 2002; Peach, 1996; Quillian, 1995) examined racism and social integration in neighborhoods but not ageism. This study highlights that ageism varies by neighborhoods and by their spatial characteristics. In more affluent neighborhoods and where older people comprise greater proportions of the neighborhood population, ageism is lower. This suggests that when older people are a more powerful and significant consumer constituency of service utilization, and the more opportunities the neighborhood provides for social interaction with older people, the less ageism there is. However, this issue was not examined in this study and therefore merits further investigation.

Unexpectedly, length of residence in the neighborhood was found to be insignificant in explaining social integration. It was expected that the longer people live in their neighborhood the better their familiarity with it; they may have established larger social networks and relationships with neighbors, and have a greater sense of belonging (Schulz et al., 2006). However, it might be that length of residence plays a role in the first years until people become familiar with their neighborhood. In this study, the vast majority had lived for many years in their neighborhoods so it might be that length of residence was no longer a significant factor. Another possible explanation is that the size of the social networks varied among the older adults due to death and departure of members of those social networks. Thus, a person who has long resided in a neighborhood but whose friends are now mostly gone may be isolated compared with someone who has long resided in a neighborhood and continues to enjoy the company of long-standing neighbors. These issues, however, merit further investigation.

Implications

Several ramifications derive from the study's findings. From the perspective of research, the contribution of this study is that to understand social integration of older people in their spatial environments where there is need for a multidisciplinary and comprehensive perspective that relates to the characteristics of the individual, space, economic, and social factors that play a role in this regard

and to the interaction between them. Therefore, greater collaboration and communication within and between disciplines is necessary to understand this complex phenomenon (Andrews, Cutchin, McCracken, Phillip, & Wiles, 2007). For example, looking solely on ageism as a sole barrier to social isolation and exclusion of older people can provide only a partial picture of this phenomenon. This study opens new avenues for further research on the impact of the neighborhood characteristics on the social integration of older individuals in their communities and calls for further investigation of the factors that play a role in this regard. For example, this study was performed in a city. It might be that in rural areas or in small or peripheral towns that offer fewer services and where there is less accessibility to services, other factors play a role with regard to the social integration of older people (Evans, 2009).

From the perspective of policy and practice, the study throws some light on the factors that can increase or decrease social integration at the community level, where people live and act. To enable aging in place and active aging, and to make communities more age-friendly, there is need to address the factors that encourage ageism at the local level and enhance accessibility and participation of older persons in the community life. This can improve their well-being as well as contribute to community cohesion and intergenerational solidarity, and promote the overall quality of life of the neighborhood inhabitants. Because social integration of older people is becoming a pivotal policy issue in many aging societies, it is necessary to identify the means to combat the factors that hinder their social integration in their communities. Taking into account the circularity and reciprocal nature of social integration and ageism, it is necessary to develop services that increase intergroup contacts and provide more opportunities for social exchange. Creating more opportunities for intergenerational programs can provide frequent and meaningful contacts between young and old, improve older persons' quality of life, and decrease younger persons' negative stereotypes toward the aged (Hamilton et al., 1999). Also, removal of barriers that hinder service accessibility and limit their activities can help to increase social integration of older people and make their communities more age-friendly. For this, a more comprehensive planning of the physical environment, which is an important factor mediating aging experiences and opportunities, is

required. It should be stressed that environmental factors can have a significant impact on mobility and independence, and hence affect the quality of life of older people living in the community. In addition, provision of a wide range of support services and transportation is required.

Limitations

There are several limitations to this study; first, the study is cross-sectional, thus a causal relationship between ageism and social integration is unwarranted. Further investigation and evaluation studies that will include longitudinal as well as quasi-experimental designs to examine differences in levels of ageism and social integration can throw light on this issue. This can enable better understanding of the association between these variables and identify factors that can promote social integration of older adults in their environments. Second, generalization of the findings is limited because the sample and the sampling procedure do not guarantee representativeness of the inhabitants in each neighborhood. This is because the sample was not randomly selected and included only people who were in specific places out of their homes when data were collected, and only those who were proficient in Hebrew were included in the sample. For example, the percentages of women of the young groups who were interviewed in two neighborhoods were significantly higher than those of men, whereas in the third neighborhood, the percentage of men was significantly higher than that of women. Furthermore, to probe ageism, a small convenience sample of only 100 respondents was used in each neighborhood, which may not be representative of the neighborhood. In addition, the majority of the older participants in Neighborhood C was recruited through senior citizen clubs, compared with 35% and 22% in neighborhoods A and B, respectively. These could also bias the results and could affect the relatively high level of social integration found in this neighborhood. In all neighborhoods, the elderly participants were recruited outside their homes, and this can also bias the results of the study and point at higher levels of social integration than in reality. Therefore, generalization of the findings should not be warranted. Third, the sample size in each neighborhood was too small to perform multivariate analyses because the number of independent variables that may impact on social integration

was limited. In addition, the wide range of ages among the younger group can mask differences in ageism levels between specified age groups. Future studies should examine this issue in more specific age groups. Another limitation is the measure used to probe social integration. Although internal consistency was good, there is need to content valid measures that will better encompass the content of social integration of older people. For example, it might be that recruitment locations and outdoor mobility actually reflect some aspects of social integration, thus confounding the measure used to probe social integration. Therefore, future studies should examine the content validity of the social integration measure used in this study.

Despite these limitations, the study adds to our knowledge in understanding the interaction between ageism and social integration of older people in their communities and neighborhoods and points to the need for further research in order to understand how ageism can be reduced and enable aging in place and active aging in neighborhoods and better quality of life for the whole neighborhood.

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