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Social capital and mental well-being of older people residing in a residential care facility in Durban, South Africa

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Introduction: Global increases in life expectancy are expected to continue, with accompanying physical and mental well-being challenges specifically for older people living in residential care settings.

Objective: The aim of the study was to investigate the association between mental well-being and social capital of older residents (60+ years) in an urban residential care facility in South Africa.

Method: A descriptive survey was conducted with 103 residents living in a residential care facility in an urban environment in South Africa. The social capital framework from the Canadian Policy Research Initiative, the WHO-5 well-being index, the Kessler-6 measure of psychosocial distress, the OSLO-3 Social Support Scale and the Australian Bureau of Statistics Indigenous Health Questionnaire were used to develop the questionnaire.

Results: The WHO-5 showed moderate ratings of mental well-being for the standard scoring (>13) (62, 82.7%), but lower levels when using 'no negative ratings' (36; 50.6%). Significant differences in the primary network size, average closeness, self-efficacy and social support as well as the ability to confide in primary network was shown between residents with mentally well and unwell ratings. Logistic regression showed that the strongest predictor for mental well-being was participation in activities outside of the residence and having a primary network.

Conclusion: The study confirms the association between social capital and mental well-being.

Keywords: social capital; older persons; mental well-being

Introduction

Advances in the medical sciences have contributed to global increases in life expectancy (Wang et al., 2012). South Africa has mirrored this trend and this increase in life expectancy is expected to continue (Statistics South Africa, 2014). However, these increases are accompanied by physical and mental well-being challenges (Bisschop, Kriegsman, Beekman, & Deeg, 2004; Statistics South Africa, 2014), such as loneliness and psychological distress, which may co-exist with increased social isolation and exclusion (Drageset, Kirkevold, & Espehaug, 2011). Social isolation is often due to a shrinking social network size (Keating, Swindle, & Foster, 2005; van Groenou, Hoogendijk, & van Tilburg 2013) which can lead to intensified feelings of insecurity and vulnerability. This can be counterbalanced by active social connectedness and strong network densities (Keating et al., 2005), which can offer a solid sense of social support and together these are the key to older persons' mental well-being (Keating et al., 2005). These social networks of people with relational ties that have structural and dynamic properties allowing access to resources and supports can be defined as social capital (Franke, 2006). Social capital offers the possibility of improved mental well-being (Keating et al. 2005) and the contribution of the network to social capital is greater when there is

increased frequency of contact among its members (Franke, 2006).

Social capital is directly linked to quality of life (Nygqvist, Forsman, Giuntoli, & Cattani, 2012) and mental well-being markers such as positive affect, optimism, life satisfaction, trust and hopefulness (Blazer, 2002; Gallagher & Lopez, 2009; Nyqvist et al., 2012). In older persons, hopefulness is directly linked to self-efficacy (Gallagher & Lopez, 2009; Keating et al., 2005) through opportunities to influence the direction of their life (Biddle, 2012; Blazer, 2002; Keating et al., 2005). High levels of self-efficacy and trust are also directly linked with happiness and social engagement (Biddle, 2012; Blazer, 2002; Franke, 2006). Trust is cumulative and strengthened by the frequency of social connections and interactions, such that a person on his/her own is helpless socially (Putnam, 2000). Viewed as a determinant, trust contributes to mental well-being (Australian Bureau of Statistics [ABS], 2004; Franke, 2006), while other perspectives see trust as a return on social capital (Biddle, 2012), with distrust eroding social capital and undermining group cohesion (Putnam, 2000).

In persons 60 years and older, decreased social capital and a lowered sense of mental well-being are linked (Biddle, 2012; Keating et al., 2005). In residential care settings, this becomes more apparent in the light of

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residents' separation from significant others who have the potential to offer social connectedness and support and thereby create social capital (Biddle, 2012; Boen, 2012; Drageset et al., 2011). For those living in residential care facilities, the foremost source of social support is contact with family, in particular children, but it does not deny the value of friends (Tsai, H-H., Tsai, Y-F., Wang, Chang, & Chu, 2010; Wright, 2000). Social support as family support and social support as companionship are not mutually exclusive (Wright, 2000) and are both of proven value in bereavement or relocation (Cohen-Mansfield & Parpura-Gill, 2007).

Very little has been published on social capital and mental well-being in older people and specifically so in low resource settings such as South Africa. (Petersen, Bhana, Swartz, 2012). In this context, a study was conducted to investigate older persons' (60+ years) social capital and mental well-being in a specific urban residential care facility in South Africa.

Method

The study was a quantitative descriptive survey of mental well-being and social capital of older persons conducted in an urban residential care facility in South Africa using an interviewer-administered questionnaire. The facility's management as well as the University ethics' committee provided permission (HSS/0863/013M).

Population and sampling

The residential care facility is one of a cluster of 15 facilities that provides for older persons of varying degrees of independence in a province of South Africa. The organisation is a publicly funded organisation providing a spectrum of services to older persons ranging from the promotion of longevity and independent living in the community to the provision for those needing frail care. The purposive selection by the organisation's management of the one site was based on the number of residents who could possibly be subject to social isolation and its effects on their mental well-being with the intent plan a mental well-being intervention for this site. There was no sampling and all residents ($N = 103$) were invited to participate as they met the inclusion criteria (60+ years, available at the time of data collection, consenting, cognitively intact as assessed by the care team).

Instrument

The research instrument was based on the social capital framework of the Canadian Policy Research Initiative (Franke, 2006) and included a measure of mental well-being [WHO (five) Wellbeing Index (WHO-5)], a validated depression screening tool for older people, [Kessler-6(K6)], validated social capital measures for network structure and dynamics [Australian Bureau of Statistics Indigenous Questionnaire (ABS, 2004)] and finally a measure for social support [OSLO-3 Social Support Scale

(OSLO-3)] (ABS, 2004; Biddle, 2012; Kessler et al., 2010; Mc Dowell, 2010; Nosikov & Gudex, 2003; WHO, 1998). Psychological status was measured using the construct of well-being measured by the WHO-5 and psychosocial distress (depression and anxiety) measured by the Kessler-6 (K6). The K6 and the WHO-5 showed good reliability in this setting with a medium-strength negative bivariate correlation ($r = -.488, p = <.001$) with 27.6% of the variation in well-being score explained by lack of psychosocial distress and consistent scoring across the two instruments. The WHO-5 has well-established reliability [IC .82-.95 (McDowell, 2010)], concurrent validity (Center for Epidemiologic Studies Depression scale: .4-.67; Hospital Anxiety and Depression scale: .76; Patient Health Questionnaire .73) (McDowell, 2010) and internal and external validity for older persons (Bech, Olsen, Kjoller, & Rasmussen, 2003; Bonsignore, Barkow, Jessen, & Heun 2001). The tool assesses emotional well-being over 14 days by way of five separate six-point Likert scales with a cut-off score of less than 13 (<http://www.cure4you.dk>). It encompasses the three primary items of depression, namely mood, energy and interests, as positive constructs. Internal consistency for the tool was good with a Chronbach's alpha of .827 in this study. The K6 is a six-item psychosocial distress scale, which has well established concurrent validity (General Health Questionnaire: .78 Japan, .87 Brazil, .92-.97 other countries) (Kessler et al., 2010; Andersen et al., 2011) and criterion validity (K10 depression and anxiety: Dutch .85, Moroccan .88, Turkish .80; common mental disorders in general practice (GP) practice: Australia, .88; North America, .85, South Africa, depression, .77 (Se:70%; Sp:62%), generalised anxiety disorder, .78, post-traumatic disorder, .77) (Andersen et al, 2011). The K-6 has been used in epidemiological studies in Canada, Australia and South Africa (South African Stress and Health Survey), though some critique of its use in South Africa was given by Andersen and colleagues (2011) who expressed concern due to its low ability to discriminate depression in the Black population group. The K6 uses a five-point Likert scale that measures for non-specific psychological distress and possible depression over the last 28 days, with a cut-off score of less than 10 after a summation of the scores (Andersen et al., 2011; Kessler et al., 2010). Internal consistency for the tool was good with a Chronbach's alpha of .86 in this study. The OSLO-3 has been used in studies with older persons and shows concurrent validity with the HSCL-10 (Boen, 2012).

Data collection

A pilot study was conducted which resulted in minimal changes to the questionnaire. Thereafter, over eight sessions and a period of four days in September/October 2013, the researcher and trained assistants collected data from 75 participants. Prior to the data collection, there was a 20-minute orientation session to the study and questionnaire, and the completion of informed written consent.

Data analysis

Data was analysed in IBM SPSS version 21. Total scores were calculated for mental well-being. Two categorisation criteria were initially used to determine whether a participant qualified as mentally unwell: a cut-off score of less than 13 (WHO, 1998); and any negative response ('at no time' or 'some of the time') as suggested by the Psychiatric Research Unit in Hillerod, a WHO Collaborating Centre for Mental Health (<http://www.cure4you.dk>). However, this paper uses the categorisation of 'any negative response' for further data analysis due to the larger number of mentally unwell participants in this category and thus the greater likelihood of addressing the larger audience that could benefit from an intervention linked to the outcome. Social capital measures were calculated for network structure and dynamics, and social support. Data was tested for normality and non-parametric tests (Mann–Whitney U test (U), Kruskal–Wallis Independent Samples test (K) and Chi-square or Fisher Exact tests) were used to test the hypothesis that there would be an association between the measures of social capital (the independent variable) and mental well-being (dependent variable). Significance was set at $p < .05$. A logistic regression was conducted to determine the level of contribution of the social capital variables (primary network size, activities outside the residence, trust, self-efficacy and total social support) to mental well-being (no negative ratings).

Results

The survey had a good overall response rate of 73% ($n = 75$). The participants were predominantly widowed ($n = 45$; 60.0%), had completed their schooling ($n = 39$; 52.0%) and were first language English speaking ($n = 68$; 90.7%). Nearly 80% were 76+ year females ($n = 35$) who had resided in the setting for two to five years ($n = 34$; 45.3%).

Overall the participants had good reported mental well-being on the WHO-5 (17.5 (SD 5.9), 2–25) (Table 1), with 62 (82.7%) of the participants reporting a relative sense of well-being (>13) and 13 (17.3%) a poor sense of well-being (<13). Ratings differed on the individual items with the lowest ratings for 'feeling active and vigorous' ($n = 50$; 66.7%). This data was confirmed with the K6 with low scores of psychosocial distress [10.0 (SD 4.9), range: 6–28] with only five participants who reported experiencing severe psychological distress (Table 1) and males showed significantly greater psychological distress than females [(11.9 (SD 5.8) vs 9.4 (SD 4.5)] ($U = 2.5$, $p = .014$).

When considering the absence of any negative ratings as indicating mental wellness, lower levels of mental well-being were identified with only 36 (50.7%) reporting no negative ratings. Using the 'no negative ratings' classification of mental wellness, there were no significant differences between the participants with different levels of well-being for gender, age groups (60–75, 75+ years), language group, ethnic group, marital status, educational

level and time in the residence, but significant differences in mental well-being, psychosocial distress and social support (Table 1).

Individual social capital and mental well-being

Social capital was measured through network structure (network size and frequency of contact with network) and network dynamics (social connectedness, social support, self-efficacy and trust) (Table 2).

Network structure

Network structure was greater among the mentally well group of participants in terms of size and frequency of contact. There were significant differences in current network size numbers between the mentally well group (6.3 SD 1.4) and mentally unwell group (2.8 SD 0.8), ($U = 3.8$, $p = <.001$). This was mainly driven by significant difference ($U = 2.0$, $p = -.046$) in the number of living grandchildren (3.7 SD 3.2 vs 3.1 SD 5.0), but not the number of living children 2.2 SD 1.2 vs 1.7 SD 1.7) ($U = 1.7$, $p = .086$). When considering the frequency of contacts with network members, no significant difference was found between the mentally well and mentally unwell participants ($U = 1.9$, $p = .059$). In both categories, friends were contacted most frequently (Table 2).

Network dynamics

The mentally well participants showed significantly higher levels of social connectedness as demonstrated by greater participation in activities organised inside the residence (29, 76.3%) ($U = 1.6$, $p = .120$) and outside (20, 52.6%) ($U = 3.0$, $p = .003$). The mentally well participants also had higher social support which was significantly associated with mental well-being ($U = 2.8$, $p = <.006$). This was demonstrated by the finding that 23 (60.5%) of the mentally well participants compared to 8 (21.6%) mentally unwell participants reported ease in finding help ($U = 3.0$, $p = .003$). This was also confirmed for *self-efficacy*, with a higher score for the mentally well participants (7.4 SD 1.7) compared to the mentally unwell participants (6.6 SD 1.7) ($U = 2.4$, $p = .015$). However, this difference was not due to the ability to have a say in family or residential matters as there was no significant difference in either of these opportunities. There were also significant differences in terms of *trust*, *closeness* and ability to *confide* in the network. The mentally well participants reported higher levels of closeness (1.9 SD 0.8 vs 1.2 SD 0.9) ($U = 3.2$, $p = <.002$) and higher ratings in the ability to confide in their children (2.3 SD 1.1) ($U = 2.5$, $p = .011$) and grandchildren (1.5 SD 1.1 vs 0.9 SD 1.1) ($U = 2.2$, $p = .30$). About three quarters of the mentally well ($n = 28$, 73.7%) and unwell ($n = 28$, 75.6%) participants reported high levels of trust in doctors (1.3 SD 0.9 vs 1.9 SD 1.1) ($U = 2.3$, $p = .024$). When considering reported trust towards people, 10 (27.0%) mentally unwell compared to 24 (63.1%) mentally well participants

Table 1. Demographics and mental health of participants.

| | All participants ($n = 75$) | Mentally well (WHO-5) ($n = 38$) | Mentally unwell (WHO-5) ($n = 37$) | Statistic | p -value |
|--|-------------------------------|------------------------------------|--------------------------------------|-----------------|------------|
| Demographics | | | | | |
| Gender | | | | | |
| | Male 17 (22.7%) | Male 9 (23.7%) | Male 8 (21.6%) | $\chi^2 = 0.05$ | $p = .831$ |
| | Female 58 (77.3%) | Female 29 (76.3%) | Female 29 (78.4%) | | |
| Age group | | | | | |
| Younger old: 60–75 years | Younger old: 31 (41.3%) | Younger old 19 (50%) | Younger old 12 (32.4%) | $\chi^2 = 2.4$ | $p = .122$ |
| Older old: | Older old: 44 (58.7%) | Older old 19 (50%) | Older old 25 (67.6%) | | |
| 76–100 years | 76–100 years 44 (58.7%) | | | | |
| Language group | | | | | |
| | English 68 (90.7%) | English 36 (94.7%) | English 32 (86.5%) | $\chi^2 = 1.5$ | $p = .223$ |
| | Other 7 (9.3%) | Other 2 (5.3%) | Other 5 (13.5%) | | |
| Ethnic group | | | | | |
| | White 58 (77.3%) | White 29 (76.3%) | White 29 (78.4%) | $\chi^2 = 0.5$ | $p = .831$ |
| | Indian 17 (22.7%) | Indian 9 (23.7%) | Indian 8 (21.6%) | | |
| Marital status | | | | | |
| | Never married 11 (14.7%) | Never married 3 (7.9%) | Never married 8 (21.6%) | $\chi^2 = 3.4$ | $p = .183$ |
| | Married 0 (0.0%) | Widowed 26 (68.4%) | Widowed 26 (68.4%) | | |
| | Widowed 45 (60.0%) | Divorced 9 (23.7%) | Divorced 10 (27.0%) | | |
| | Divorced 19 (25.4%) | | | | |
| Highest educational level | | | | | |
| | Primary 11 (14.7%) | Primary 5 (13.2%) | Primary 6 (16.2%) | $\chi^2 = 1.1$ | $p = .780$ |
| | Grade 10 25 (33.3%) | Grade 10 11 (28.9%) | Grade 10 14 (37.8%) | | |
| | Matric/grade 12 21 (28.0%) | Matric 12 (31.6%) | Matric 9 (24.3%) | | |
| | Tertiary 18 (24.0%) | Tertiary 10 (26.3%) | Tertiary 8 (21.6%) | | |
| Time staying in facility | | | | | |
| | <1 year 25 (33.3%) | <1 year 10 (26.3%) | <1 year 15 (40.5%) | $\chi^2 = 1.7$ | $p = .426$ |
| | 2–5 years 34 (45.3%) | 2–5 years 19 (50.0%) | 2–5 years 15 (40.5%) | | |
| | 5+ years 16 (21.3%) | 5+ years 9 (23.7%) | 5+ years 7 (18.9%) | | |
| Mental well-being, psychosocial distress and social support | | | | | |
| WHO-5 score/25 | | | | | |
| | 17.5 (5.9) | 21.6 (2.6) | 13.2 (5.3) | $U = 6.7$ | $p < .001$ |
| K-6 score/35 | | | | | |
| | 11.0 (4.9) | 8.6 (4.0) | 11.5 (5.3) | $U = 3.1$ | $p = .002$ |
| Oslo 3/14 | | | | | |
| | 10.8 (2.2) | 11.3 (2.5) | 10.2 (1.9) | $U = 2.8$ | $p = .006$ |

Note: Differences in gender, age groups, language group, ethnic group, marital status, highest educational level, time staying in the residence were tested using Chi-square tests (or Fisher Exact Tests where appropriate χ^2) and Independent Samples Mann–Whitney U Tests (U).
Significance was set at $p < .05$.

Table 2. Individual social capital measures and mental well-being.

| Individual social capital indicators | All participants (<i>n</i> = 75) | Mentally well (WHO-5) (<i>n</i> = 38) | Mentally unwell (WHO-5) (<i>n</i> = 37) | Statistical test | <i>p</i> -value |
|--|--------------------------------------|---|---|------------------|-------------------|
| Network structure | | | | | |
| Current network size | 5.5 SD 1.5 | 6.3 SD 1.4 | 5.5 SD 1.7 | <i>U</i> = 2.1 | <i>p</i> = .039 |
| Primary network size | 2.4 SD 1.0 | 2.8 SD 0.8 | 1.9 SD 1.0 | <i>U</i> = 3.8 | <i>p</i> = <.001* |
| Frequency of contact with network/year | 419.8 SD 340.5 | 489.6 SD 342.0 | 348.1 SD 328.2 | <i>U</i> = 1.9 | <i>p</i> = .059 |
| Network dynamics: social connectedness | | | | | |
| Involved in activities in residence in last 3/12 | 51 (68.0%) | 29 (76.3%) | 22 (59.5%) | <i>U</i> = 1.6 | <i>p</i> = .120 |
| Involved in activities outside residence in the last 3/12 | 27 (36.0%) | 20 (52.6%) | 7 (18.9%) | <i>U</i> = 3.0 | <i>p</i> = .003* |
| Network dynamics | | | | | |
| Self-efficacy/10 | 7.0 SD 1.7 | 7.4 SD 1.7 | 6.6 SD 1.7 | <i>U</i> = 2.4 | <i>p</i> = .015* |
| Say with family in issues | 50 (66.7%) | 28 (73.7%) | 22 (59.5%) | $\chi^2 = 1.7$ | <i>p</i> = .194 |
| Say in residence in issues | 37 (49.3%) | 22 (57.9%) | 15 (40.5%) | $\chi^2 = 2.2$ | <i>p</i> = .135 |
| Network dynamics: trust (Closeness, confidant, reported trust) | | | | | |
| Average closeness to primary network members | 1.3 SD 0.9 | 1.9 SD 0.8 | 1.2 SD 0.9 | <i>U</i> = 3.2 | <i>p</i> = <.002* |
| Closeness to health staff | 1.1 SD 0.9 | 1.1 SD 1.0 | 1.1 SD 1.0 | <i>U</i> = 0.2 | <i>p</i> = .846 |
| Closeness to friends and community | 1.8 SD 1.0 | 1.9 SD 1.1 | 1.9 SD 1.1 | <i>U</i> = 0.5 | <i>p</i> = .620 |
| Closeness to religious leader | 1.6 SD 1.3 | 1.6 SD 1.3 | 1.6 SD 1.3 | <i>U</i> = 0.3 | <i>p</i> = .802 |
| Can confide in primary network | 1.9 SD 1.1 | 2.3 SD 1.1 | 1.5 SD 1.3 | <i>U</i> = 2.5 | <i>p</i> = .011* |
| Can confide in friend | 1.9 SD 0.9 | 2.0 SD 1.0 | 1.9 SD 0.9 | <i>U</i> = 0.6 | <i>p</i> = .556 |
| Can confide in community | 0.8 SD 1.1 | 0.8 SD 1.1 | 0.8 SD 1.1 | <i>U</i> = 0.1 | <i>p</i> = .925 |
| Can confide in doctor | 1.6 SD 1.1 | 1.3 SD 0.9 | 1.9 SD 1.1 | <i>U</i> = 2.3 | <i>p</i> = .024* |
| Can confide in nurse | 0.8 SD 0.9 | 0.8 SD 0.9 | 0.8 SD 0.9 | <i>U</i> = 0.2 | <i>p</i> = .877 |
| Can confide in religious leader | 1.3 SD 1.1 | 1.1 SD 1.0 | 1.5 SD 1.2 | <i>U</i> = 1.3 | <i>p</i> = .197 |
| Reported trust/25 | 18.3 SD 3.6 | 19.1 SD 3.6 | 17.5 SD 3.5 | <i>U</i> = 1.9 | <i>p</i> = .056 |
| Trust in people generally | 34 (45.3%) | 24 (63.1%) | 10 (27.0%) | $\chi^2 = 9.9$ | <i>p</i> = .002* |
| High trust towards hospitals | 43 (57.3%) | 25 (65.8%) | 18 (48.6%) | $\chi^2 = 3.7$ | <i>p</i> = .450 |
| Trust in doctors | 56 (74.7%) | 28 (73.7%) | 28 (75.6%) | $\chi^2 = 0.03$ | <i>p</i> = .843 |
| Trust towards nurses | 31 (17.2%) | 17 (44.7%) | 14 (37.8%) | $\chi^2 = 0.2$ | <i>p</i> = .683 |
| Trust to security in surrounds | 53 (70.7%) | 28 (73.6%) | 25 (67.5%) | $\chi^2 = 0.4$ | <i>p</i> = .561 |
| Social support (OSLO-3)/14 | 10.8 SD 2.2 | 11.3 SD 2.5 | 10.2 SD 1.9 | <i>U</i> = 2.8 | <i>p</i> = <.006* |
| OSLO1: primary support/4 | 2.6 SD 0.8 | 2.8 SD 0.8 | 2.5 SD 0.8 | <i>U</i> = 1.5 | <i>p</i> = .129 |
| OSLO2: concern from others/5 | 4.2 SD 1.0 | 4.3 SD 0.9 | 4.1 SD 1.1 | <i>U</i> = 1.1 | <i>p</i> = .274 |
| OSLO3:ease to access practical help's/5 | 4.0 SD 1.1 | 4.3 SD 1.1 | 3.7 SD 1.0 | <i>U</i> = 3.0 | <i>p</i> = .003* |

Note: Differences in mental well-being (measured using any negative category) were tested using non-parametric Mann–Whitney *U* test and Kruskal–Wallis (*K*) and Chi-square test.

**p*-value of significance set at <.05.

reported high levels of trust generally in people ($K = 14.0$, $p = .007$) (Table 2).

In determining the level of contribution of each of these social capital variables to mental well-being, a logistic regression was conducted with the significant independent variables of primary network size, closeness primary network, total social support, trust in people, self-efficacy and activities outside the residence and the dependent variable of mental health well-being defined as ‘no negative ratings.’ The full model containing all predictors was statistically significant, $\chi^2 (5, N = 75) = 25.7$, $p < .001$, indicating that the model was able to distinguish between participants who reported and did not report negative symptoms in terms of mental well-being. The model explained between 29.7% (Cox and Snell R squared) and 39.6% (Nagelkerke R squared) of the variance in mental well-being reporting, and correctly classified 72% of

cases. Two of the independent variables made a unique statistically significant contribution to the model [primary network size (OR 0.3, $p = .003$)] and participation in activities outside the residence (OR = 0.2, $p = .033$), both being protective factors for social capital.

Discussion

Nearly half of the participants were rated as mentally unwell which is slightly higher than that of Jongenelis and colleagues’ (2004) study involving residents ($n = 333$) from 14 nursing homes in the North West Netherlands, where 46.2% of the residents exhibited some form of depression. The finding from our study may be confounded by the connection between ageing and physical deterioration (Bisschop et al., 2004) as 33.3% of the participants (predominantly from those older than 76 years of

age) reported 'not always feeling active and vigorous.' Men had significantly higher levels of psychological distress which may relate to relocation to the residential care facility with possible implications for finances and levels of self-efficacy (Biddle, 2012) and possibly eroding their independence more drastically than women (Drageset et al., 2011).

Social capital operates in an interlocking manner and not with linear causality (Franke, 2006) and this study showed significant associations between mental well-being and social capital indicators. Central to these associations was the participants' primary network. This study showed associations between current network size and mental well-being, but as the study did not have data on the changing size of networks over time, we were unable to confirm van Groenou and colleagues' (2013) suggestions that current network size shrinkage results in mental health problems. This study underlined the value of primary network size to mental well-being, specifically having children as confidants. This was confirmed by Drageset et al (2011) who argued that in the relationships in the networks, the 'who' and the quality of social support does matter and provides a resource for social capital and an association between average closeness and willingness to confide in these members, especially the relevance of family and having children as confidants (Tsai et al, 2010).

Despite the significance of the primary network, community involvement outside of the facility had a strong determinant on mental well-being. This finding concurs with the recognition by Cohen-Mansfield and Parpura-Gill (2007) of a significant augmentation in the mental well-being of those who participated in outside activities, representing both a resource for bonding capital and bridging capital to new diverse networks (Franke, 2006). The low participation in outside activities in this study, suggests the need for remedial action in this setting and this may be the focus of important social capital interventions.

Volunteering, particularly religious volunteering is a possible way to build social capital stocks as it offers residents the opportunity to engage in a satisfying pursuit, while at the same time enlarging their social network and increasing their sense of self-efficacy, ultimately fostering mental well-being (Cornwell, Laumann, & Schumm, 2008; Musick & Wilson, 2003). A Norwegian study involving 30 residential facilities ($n = 227$) showed that where reassurance of self-worth has been offered, vitality was positively affected (Drageset et al., 2009). Trust is highly significant in the accumulation of social capital (ABS, 2004) and in the mentally unwell participants, trust in people was generally low (10, 27%). This, together with the significantly low self-efficacy score ($p = .015$), could impede involvement of activities outside of the residence, and for the mentally unwell participants, this could be compounded by the decreased likelihood of feeling close to ($p = <.002$) or having the ability to confide in their primary network ($p = .011$).

Biddle (2012) and Keating et al. (2005) in separate studies noted that passivity was counterproductive and

that having a say in family matters had a positive effect on mental well-being, as it did with residential matters. Drageset and colleagues (2009) suggested nursing staff encourage participation by residents in decisions relating to daily activities in the facility; further, this positive connection can improve residents' quality of life (Tseng and Wang, 2001). However, in this setting, this process could be hampered if trust levels between nurses and residents are not enhanced. The significantly lower sense of social support, in particular the decreased sense of ease in accessing practical help, could add to a sense of urgency to build both bonding and bridging capital in the mentally unwell. This study has highlighted the crucial role of the family as the primary network can offer in the maintenance of social capital.

Limitations

The study has a number of limitations. First, the study is context specific and was limited to one residential care facility. However, the concurrence of our findings with other studies suggests that these may be generalisable to the other facilities in the organisation and other settings with a similar racial mix. Second, consideration needs to be given to 'social desirability bias' possibly resulting in under reporting of negative ratings, especially where participants needed assistance in the completion of the questionnaire. Last, the specific scoring method of the WHO-5, may lead to different caseness in reporting.

Conclusion

This study confirms the association between social capital and mental well-being in the ageing population and highlights the need for residential care facilities to develop and implement strategies to preserve social capital.


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