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An Exploration of the Relationship of Social Networks with Depression among Older Adults: A Prospective Study

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Abstract

Research has highlighted social integration as a protective factor against depression among older adults. This thesis aims to clarify whether specific features of social networks are particularly important, the effect of perceived connectedness on the relationship between structural social integration and depressive symptoms, and whether social integration is a longitudinal predictor of depressive symptoms among older adults. The thesis also describes the social networks and prevalence of depression among older people in New Zealand, including older Māori, of which there is limited availability of existing research.

The current study utilised data taken at three waves of measurement from 3594 community-dwelling older people living in New Zealand including 172 older Māori. The relationship between components of social network structure and depression were compared using standard statistical techniques. Consistent with previous research, contact with non-family social ties was significantly and negatively associated with depressive symptoms whereas contact with family was not significantly correlated. Unlike other studies, social network size significantly predicted depressive symptoms. A series of hierarchical multivariate linear regression models indicated that, after controlling for demographics and health variables such as age, functional ability and exercise, structural integration and perceived connectedness uniquely explained between 1 and 4% of the variability in depressive symptoms. According to a multilevel model for change, social integration did not predict different trajectories of depressive symptoms over 36-months. Perceived connectedness was found to mediate 29% of the effect of structural social integration on depressive symptoms.

Results highlight the relative importance of perceived connectedness in older adults' depression. Composite measures of structural social integration in depression research with older people are indicated with the exception of items related to family ties and marital status. Measures of social integration, especially objective measures based on social network structure, may not be reliable indicators of depression risk. These findings highlight a need for further investigation into the efficacy of social

interventions, especially targeting non-family ties and perceived connectedness.

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Glossary

Social networks	The social ties that an individual has and their interactions with those ties. Often synonymous with the term *social support networks*
Social network structure	Objective defining features of an individual's social network. This includes the nature of social ties and social interactions (e.g. number, proximity, frequency, type).
Perceived connectedness	An individual's subjective evaluation of their social network. When this evaluation is negative, it is termed *perceived isolation.* Often synonymous with the term *perceived support*, though perceived connectedness refers to a broader evaluation of social relationships not limited to satisfaction with available or enacted support.
Perceived isolation	When an individual's subjective evaluation of their social network is negative. *Note.* The relationship between the terms perceived isolation and loneliness is relatively unclear in the literature. Some researchers appear to use the terms interchangeably (e.g. Cacioppo et al., 2010; Shankar, McMunn, Banks, & Steptoe, 2011), yet generally loneliness appears to be viewed as an outcome of perceived isolation (e.g. a negative feeling state) rather than the negative evaluation itself (Tiikkainen & Heikkinen, 2005).
Social integration	When an individual is both engaged in their social networks, in that they have regular interactions with a range of social ties, and those relationships are meaningful and satisfying to that individual. Social

	integration is therefore defined according to both the persons' social network structure and level of perceived connectedness. Often synonymous with the terms *social embeddedness* and *social connectedness*
Social isolation	When an individual is not engaged with their social ties and their social network is deficient, as defined by their social network structure and level of perceived isolation. Often synonymous with the terms *social disintegration* and *social disconnectedness*
Social tie	An individual or group with which an individual has recurrent patterns of interactions. Often synonymous with the term *social relationships*
Social interaction	Contact with a social tie. Not limited to face-to-face or one-on-one interaction. Often synonymous with the terms *social engagement* and *social activity*
Social support	Enacted or available assistance provided to an individual by their social ties with the aim to prevent stress to that individual.