Social Networks, Membership, and Participation on Health Outcomes

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Recent research in the social sciences has indicated that social support and control on the individual level is significant in predicting well-being, health outcomes, and mortality risk. Although the positive association and specific causal mechanisms between religious participation and health outcomes is well documented (Rogers et al 2000; Hummer et al 1999a; Rogers 1996; Levin 1994a; Ellison 1991; Jarvis and Northcott 1987), the specificity of how differential engagement with friends, family and relatives, business and work contacts, and community members is associated with psychological distress and mortality risks by sex (Umberson et al 1996; Thoits 1984), race and socioeconomic status (Williams 1990; Ulbrich et al 1989; Kessler 1982; Kessler and Cleary 1980), and age (Matt and Dean 1993) is still highly debated.

While ample studies have generated findings that provide insight into the link between social behavior and health, the findings on how various differentials in social capital and control influence psychological distress are inconclusive (Umberson et al 1996; Williams 1990; Rogers 1996). Although the vast majority of these studies are interested in variables such as social involvement, interaction, personal control, and causes of concern and distress, the data usually do not adequately capture and measure these variables.

In terms of the linkage between relationships and psychological well-being, these studies engage in two general frameworks for discussing the positive consequences and negative costs of social involvement (House, Umberson, and Landis 1988). The *social support-integration* theory argues that various types of social relationships lead to positive health outcomes through the following mechanisms; support in times of need; reinforcement of positive behavior; and increased access to information and resources. All of these translate into differential levels of psychological distress. On the other hand, the *role strains* theory argues that higher levels of psychological distress are associated with an individual's perceived control of relationships, and the differential expectations of rewards and burdens from roles in their personal life, family, work, and community.

The objective of this study is to compare these explanatory frameworks. One of the salient aspects of this study is that the survey questionnaire was designed to capture various components of social variables. The data was collected with the specific purpose of examining and constructing social capital, support, and networks at the individual level as influenced by the widespread onset of information technology.[1] This paper focuses on how the presence of social networks, communication within social networks, membership status in voluntary organizations, and the level of participation in social organizations translate into self-rated health status and

[1] 2003 Detroit Area Study. Department of Sociology, University of Michigan.

levels of psychological distress by sex and age. In addition, respondents were asked open-ended questions regarding personal control and stress factors on themselves, work, family, and the community. Unlike previous studies, this paper contributes to the discussion by using data that specifies how specific social variables are translated into differential levels of perceived and psychological health, and details the relevant mechanisms by which the translation occurs.

In this paper, s*ocial support-integration* is the prevalent theory for explaining the linkage between relationships and health outcomes. According to its framework, which controls for age, sex, educational attainment, income, work and marital status, and household organization, it could be expected that individuals with a greater diversity in venue of social contacts, as well as a greater frequency of contacts, should have better perceived health status. Also, individuals with greater diversity in venue of social contacts, as well as a greater frequency of contacts, should be better adjusted in terms of psychological distress. *Role strain*s, on the other hand, would predict that individuals with a greater diversity in venue of social contacts and greater frequency of contacts would suffer a greater degree of psychological distress, with stress inducers originating from friction inherent in the diversity of roles and relationships.

To test these hypotheses, I will use the data from the 2003 Detroit Area Study conducted by the University of Michigan. The data collection is based on a probability sample of the Detroit tri-county area, without screening and without over-sampling. Face-to-face interviews were conducted from April-August, 2003 by student and professional interviewers. Respondents were selected from household listings based on the Kish table. 510 individual level cases will inform the analysis.

For presence of social networks, I examine both the types of contacts available to an individual and the number of those contacts an individual corresponds within a typical month. The three relevant types of social networks consist of work and business contacts, family and relatives, and friends. The frequency of contacts is whether communication occurs in each of these three groups in a typical month. Social membership consists of active, non-active, and non-membership in voluntary organizations such as religious, labor union, parent-teacher, and professional/business organizations. Social participation is composed of attendance in meetings for town/school affairs, non-work club/organizational meetings, having friends over to one's home, having a community leader in one's home, and the frequency of religious services attendance, excluding weddings and funerals.

Perceived health status is measured as a response to "How would you rate your overall state of health these days?" Response categories for this question consist of excellent, very good, good, fair, and poor. Psychological distress is based on a modified version of the Kessler Psychological Distress (K10) scale. Respondents are asked the following 10 questions. "During the past 12 months, how often:

1. Did you feel tired out for no good reason?
2. Did you feel nervous?
3. Did you feel so nervous that nothing could calm you down?
4. Did you feel hopeless?
5. Did you feel restless or fidgety?

6. Did you feel so restless that you could not sit still?
7. Did you feel depressed?
8. Did you feel that everything was an effort?
9. Did you feel so sad that nothing could cheer you up?
10. Did you feel worthless?

The response categories for each of the 10-items are (1) All of the time (2) Most of the time (3) Some of the time (4) Almost never and (5) Not at all. Respondents who answer almost never or none of the time to questions 2 or 5 skipped out of questions 3 or 6 respectively. Respondents who answered all of the time, most of the time, or some of the time to questions 1, 2, 4, 5, 7, 8, and 10 were then asked the open-ended question of "What are some of the things that made you feel that way?"

In order to test the main hypotheses, I will run OLS regressions. The independent variables are the presence of social networks (scale of 0-3), the frequency of communication within these social networks (scale of 0-3), the total number of social memberships (as active, inactive, and non-membership), and the degree of social participation in various social functions and meetings as a scale of both the total types of engagement, and the frequency of participation. The two separate dependent variables are (1) perceived health status and (2) respondent score on the K10 scale.

This study will contribute to the debate in three ways. First, the analysis model refines the linkage between relationships and health outcomes by encompassing three venues of social networking. Second, the study focuses on the disentangling the association of differential levels of social networks, membership, and participation to perceived health status and psychological distress as health outcomes. Third, respondent generated answers to open-ended ended questions enables this study to examine the specific mechanisms involved in converting respondent characteristics into different levels of psychological distress.

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