Network affiliations and Psychological Well-Being: Comparison between Men and Women in America

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Abstract

In recent years, there has been a growing interest in the relation of social network dynamics to mental health. This paper examines the gender differences over the life span in their relationship between network affiliations and psychological well-being from a recent national survey in the U.S. The results prove that network size is positively related with men's psychological well-being, while network density is positively related with women's psychological well-being. Social inequality predictors such as income, education, full time or part time employment status and education are also significant in affecting the psychological well-being for both genders, but the concrete paths vary. Age effect exists, but life-span effects are more important.

I Introduction

One of the modern social psychological beliefs is that psychological well-being/ mental health are not exclusively a psychological or individualistic phenomenon, but social. The argument echoes with the social theorists in their compelling reasons that social support and social relationship affects overall happiness in general. (Phillips & Fischer 1981. See Barnett et al., 1987). To be more specific, however, the evidences that there exist differences between men and women in their social support and psychological well-being outcomes are contradictory. (Barnett et al., 1987; Umberson et al., 1996). As an important source of social support, network affiliations are embedded in people's everyday lives and hence are reflections of various social inequalities, including income inequalities, power inequalities and status inequalities. In turn, like inequalities affects psychological well-being, network affiliations, which potentially mediate inequalities' effects on psychological well-being, have potential effects on gendered psychological well-being status. In this paper, I investigate the problem based on the recent national survey and see how the network affiliations affect the inequalities in psychological well-being and report the gender differences as well as life-span effects. I start from the theoretical themes that network affiliation affects happiness in gendered patterns. Two theoretical themes support the argument, one of the being the relationship between social networks and psychological well-being. The other is the classical socialization themes that gendered childhood experiences foster gendered expression of psychological well-being.

II Theoretic Themes and Previous Research

2.1 Network Affiliations and Psychological Well-being

Both forms and contents of social sustaining institutions are linked with mental health outcomes. Social support, i.e. the emotionally sustaining content of relationships, especially perceived social support, has been subject of an immense body of research that clearly establishes an important association with emotional well-being (Turner et al, 2000). The positive association of social support with well-being is supported by hundreds of studies(House et al, 1988), including those that social resources modify the emotional impact of stressors by conditioning individuals' vulnerability to such stressors. Network affiliations are a type of social support, or structurally speaking, are an important source of social integration. Research on social integration and well-being has proved consistent results that social integration affects psychological well-being or mental health, but the direction of influences varies. For example, the marriage affiliation has different effects on men and women's mental health as different studies convey. (Gove and Tudor, 1973; Horwitz and White, 1991; etc. see Umberson et al, 1996) Network affiliations may not only be positively related with emotional well-being. Besides the above "beneficial" view, a cost view can be proved in role strain theory (starting from Robert Merton), which has proved the negative effects that network affiliation could cause distress. A classical argument in role strains study is that women's roles and relationships are often seen as more demanding and less rewarding than men's therefore more conductive to depression. Diversified role sets, varies network affiliations

and their effects towards psychological well-being should be understood within concrete contexts.

2.2 Gendered Psychological Well-being

With the social theories on social support/social integration and their mental health outcomes, even more studies are published on the gendered network affiliations and psychological well-being. Some had tried to study the gender differences in the social moderators of stress (Deborah Belle, 1987). The findings are made of three parts: First, in participation in social networks, male participation across the life cycle is more extensive but less intensive than that of females. While women's relationships tend to emphasize emotional intimacy, men's friendships tend to center around shared activities and experiences, repeating the gender differences observed in childhood. (Caldwell and Peplau, 1982) Second, in mobilization of support in times of stress, women facing stress have been found to seek out ore sources of both informal and formal support than do men. Divorced women are also more likely than divorced men to turn to their own children, friends and doctors for support. (Chiriboga et al., 1979) Finally, in terms of response to network members (kin and non-kin) who experiences stress, women participate, mobilize and respond more than men. In sum, involvement in social networks represents different positive and negative implications for men and women.

While the social moderators of stress study has found that women maintain more emotionally intimate relationships than do men, women mobilize more varied social supports in times of stress than do men and women provide more effective social support to others than do men, another major stream of study, i.e. gendered expression of stress:

(Aneshensel et al. 1991) analyzes the problem "women or men: who are more conducive to depression". Based on the different presentations of psychological well-being, they argue that it is not the question that has more stress, but different sex has different stress. They suggest that future studies should research male-prevalent and female-prevalent expressions of stress. Consequently, some research takes "alcohol intakes" as an indicator of psychological well-being (see Umberson et al, 1996).

2.3 My Research Question

By comparing men and women of different race, age and network affiliations in America, my research question is to investigate the gender differences in the way network affiliations affects individual's psychological well-being.

III Data and Measurement

3.1 Data

The empirical data used in the paper is drawn from a national representative sample of the National Opinion Research Center's General Social Survey (GSS) in 2004[1], which has a module on Voluntary Associations/Social Networks as a follow-up study in 1985 GSS. 1280 male and 1532 female respondents aged 18 and above were asked a wide range of questions, including network affiliations and psychological well-beings. I

[1] See 2nd release, from NORC, in Oct 2008. The codebook of the cumulative survey can be found at http://publicdata.norc.org:41000/gss/Documents/Codebook/FINAL%202006%20CODEBOOK.pdf

exclude 210 cases with missing values of key explanatory variables of number of kids, race, marital status, income, employment status, church attendance and education. Then I keep respondents who had answered the questions of voluntary network affiliations. The data for analyses has 1363 respondents who had valid answers with their network affiliations (NUMGIVEN), among them 603 were male and 760 were female. The regression results are provided with the weight (WTSS) considered.

3.2 Variables and Measurement

Response variable: psychological well-being

I use multi-dimension measurement to measure psychological well-being. Although GSS 2004 does not have a mental health module, it does offer an alternative and exclusively asks respondents questions on their self-reported mastery, self-esteem and perceived happiness. Respondents were asked to indicate their agreement with each of the following statements by selecting “agree”, “strongly agree”, “disagree”, “strongly disagree” which best describes their answer. These questions are: “On the whole, I am satisfied with myself.” “All in all, I'm inclined to feel I'm a failure.” “I wish I could have more respect for myself.” “I feel that I’m a person of worth, at least equal to others.” “At times I think I am no good at all.” “I’m always optimistic about my future.” “I hardly ever expect things to go my way.” “I rarely count on good things happening to me.” “Overall, I expect more good things to happen to me than bad.” And “I feel I have little influence over the things that happen.” GSS 2004 also asked how fair “feeling sad and blue” was a good description of the respondent. Based on the well-being indices in other

studies (Bowman, 1998) that have almost similar questions, I recode the answers into three well-being indices for analysis.

Personal efficacy: This is an efficacy measurement made out of a five-term index (OWNDOING, MOREGOOD, OPTIMIST, PESSIMST, NOTCOUNT) which taps a general sense of internal control over important events in one's life (Bownman 1996 &1998). Changes of directions of a four-point scale ranging from "strongly agree" to "strongly disagree" are made where necessary. The correlation coefficients between each of the 5 sub-measurement of personal efficacy are significant. High levels of personal efficacy reflect a general sense of personal power, playfulness, control and predictability while low levels reflect a general sense of powerfulness, fatalism, uncontrollability and uncertainty.

Self-esteem: This is an esteem measurement made out of a five-term index (SATSELF AFAILURE SLFRSPCT OFWORTH, NOGOOD) which taps a general sense of being persons of worth, can do things right, have proud and have useful lives. Changes of directions of a four-point scale ranging from "strongly agree" to "strongly disagree" are made where necessary. The correlation coefficients between each of the 5 sub-measurement of personal efficacy are significant.

Perceived Life Quality: This is constructed by measuring respondents' life satisfaction and life happiness (SADBLUE). Several studies have found such perceived life quality or subjective well-being items to be conceptually and empirically convergent (Bownman 1998), hence it becomes a third dimension of psychological well-being in this paper.

Explanatory variables

Network Affiliation:

Measurement of network affiliation in this study complies with the GSS "core discussion networks". The level of analysis is individual actors.

Size of network affiliation: As the major indicator of network affiliation, this measurement asks respondents the number of the people they discuss important matters with.

Density of network affiliation: This measurement is generated by dividing the sum of closeness scores ranging from 0 to 1 by the valid number of ties in the personal network. Density is only meaningful for respondents who mentioned more than one alters in the discussion networks.

Related Socio-demographic variables:

Race: Race is coded into two dummy variables: White, Black with other races as the omitted category.

Marital Status: The respondent's marital status is coded into two dummy variables: married (married =1, otherwise =0) and ever married (widowed, divorced and separated=1, otherwise=0), with "never married" as the omitted category.

Annual family Income: Income measure s the total annual family income in 12 categories. In the regression, income is recoded as a dummy variable, with less than $10, 000 =1 indicating low income and over $10, 000=0.

Employment status: Work status is recoded as two dummy variable: full time work and part-time work. Joblessness is the omitted category.

Church Attendance: This measurement reflects how often the respondent attends religious services. It is a 1 to 7 scale, with 1= less than once a year, 7=every day.

Number of children: This measurements indicates how many children a respondent have, with the number ranging from 0 to 8 or more.

Education: As a key variable, education is included in the models for analyses. It is a measurement represented in highest year of school completed measured by years.

Age: Age is included to capture any cohort effect. In the life-span comparison of male and female, I recode age in years into three age groups: early adulthood 18-34; mid-life 35-54; older adulthood: 55-89 to capture a life-course variation. In individual regressions, age is taken as a continuous variable with the number of years since birth.

IV Results

OLS regression is applied to compare the gendered difference of psychological well-being. Men and women were analyzed according to three age groups: early adulthood, mid-life and older adulthood. Tables 3 to Table 5 report the results. First of all, many conventional determinants of psychological well-being have clear effects on the score of personal efficacy, self-esteem and perceived life quality for both males and females. Second, the percentage of psychological well-being measurement explained by predictors varies with life span for both males and females. Third, the effects of core discussion network size and density are not as important as conventional socio-economic determinants of the three dimensions of psychological well-being, but the effects vary.

Personal Efficacy: In men's early adulthood, annual family income ($B=.29$, $p<.05$) , less number of children ($B=-1.32$, $p<.01$) and more years of education ($B=.24$, $p<.1$) are significantly positively related their personal efficacy. In women's early adulthood, full

time employment (B=-.97, p<.05) contributes to lower personal efficacy significantly. Smaller core discussion network size and greater network density contributes to greater personal efficacy, and for women, closer relationship in the core discussion network contributes more to the personal efficacy than for men, but they are not statistically significant. When it comes to the mid-adulthood, the frequency of attending religious services can significantly increase men's personal efficacy (B=.26, p<.01), while smaller network density (B=-1.06, p<.1) and full time work status (B=-.76, p<.1) degrade women's personal efficacy, and more years of education increases women's personal efficacy. The results are different for older adults: men's personal efficacy can be elevated by more attendance of religious activities (B=.16, p<.1), but for women, being white(B=4.41, p<.001) and black(B=5.11, p<.01), having more years of education (B=.27, p<.001), having less children (B=-.28, p<.1) would significantly increase their efficacy.

Self Esteem: First of all, none of the predictors show significant relationship with men's self esteem in their early adulthood or older adulthood. In women's early adulthood, only more years of education (B=.13, p<.1) contributes to higher level of self-esteem significantly. Second, for mid-life men, larger core discussion network (B=.35, p<.05) significantly increases their level of self-esteem, but the trend is missing for women. Younger men (B=-.1, p<.05) and women with less children (B=-.28, p<.1) report more self-esteem in their mid-life. Third, unlike their male counterparts, women in older adulthood report higher self-esteem if they are white(B=3.15, p<.01), have full time jobs (B=1.43, p<.1), more years of education (B=.15, p<.1) and older physical age (B=.05, p<.1)

Perceived Life Quality: In men's early adulthood, part time working male (B=.81, p<.1) are reported to be happier and less sad than others. In women's early adulthood, none of the predictors in the regression are related with perceived life quality significantly. For mid-life men and women, having less children (B=-.18, p<.01 for men and B=-.02, p<.01 for women) is significantly related to their perceived life quality. Finally, for older men, a larger network size (B=.12, p<.1), being black (B=1.03, p<.05), working full time (B=.44, p<.05)or part-time (B=.52, p<.05) are all significantly related to a higher degree of perceived life quality. For older women, however, more annual family income and more years of education are significantly related to a higher degree of perceived life quality.

V Discussions and Conclusion

The above results once again prove that the gender differences in network affiliation (measured by network size, density) and psychological well-being are obvious across the three major life spans for men and women. However, the relationship between network size and density with personal efficacy, self-esteem and perceived life quality are rather complex. Findings support the larger size of core discussion network are beneficial for mid-life men's self-esteem and older men's perceived life quality, but none of the significant relationship between the discussion network size and any dimension of women's psychological well-being in any age group. By contrast, no evidence between the network density and psychological well-being are found among men in any age group, but the results show that for women in mid-life, closer relationships in the network actually degrade their personal efficacy. These findings echoes with the previous studies

and aforementioned theory that women participate, mobilize and respond more than men, the "extensiveness" of network affiliations is more important for males, and "intensiveness" of network affiliations is more important for females.

Cross-lifespan analyses reveal the complexity of the psychological well-being determinants that could be messed and mingled by not taking age separately. The related literature on the age effects on the relationships between network affiliation and psychological well-being are under-represented in related sociology, but such methods to control age are more commonly used in psychology research. In this study, the control of age is helpful in teasing out the differences between men and women in their network affiliations and psychological well-being.

Not surprisingly, the most obvious determinants in personal efficacy, self-esteem and perceived life quality are still social inequalities in income, education, work status, and other life-events like the number of children. Work status and education are especially important for women than for men in their higher level of psychological well-being. The effect of race alone is not quite significant in their relationship with men or women's psychological well-being. Religious activities can enhance psychological well-being for men and women in mid-life or older adulthood.

The dataset used in the paper is the best matching one among GSS data sets, as it has both psychological well-being measures and network affiliation measures. The regression results are obtained after applying the weight variable. However, due to large numbers of missing answers, the study may still suffer the problem of over-generalization from small unrepresentative samples. Another deficiency of the findings is the relatively "casual"

measurement of psychological well-being, as GSS 2004 does not have a theory-driven measurement of the issue. Results are more descriptive, not predictive from representative national samples.

Overall, the study shows that the network affiliations are moderately related with men and women's psychological well-being, but the relationship is rather complex. Network size is positively related with men's psychological well-being, especially in self-esteem and perceived life quality. Network density is positively related with women's psychological well-being, especially in personal efficacy. Age effect exists, but life-span effects are more important. Conventional social inequality predictors such as annual family income, education, full time or part time employment status and education are still important preceptors significant in affecting the psychological well-being for both genders; the concrete paths vary.

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Table 1: Size of Discussion Networks, Male and Female, 2004 GSS

	Total Discussion Network			
	Male		Female	
0	172	28.52%	177	23.29%
1	128	21.23%	138	18.16%
2	96	15.92%	143	18.82%
3	97	16.09%	128	16.84%
4	38	6.30%	83	10.92%
5	39	6.47%	54	7.11%
6	33	5.47%	37	4.87%
Total	603		760	
Mean	1.92		2.15	
SD	1.80		1.77	

Table 2: Density of Core Discussion Networks, Male and Female, 2004 GSS

	Male (N=303)		Female (N=445)	
Network Density				
<.25	32	10.56%	48	10.79%
.25-.49	49	16.17%	56	12.58%
.50-.74	114	37.62%	182	40.90%
>.74	108	35.64%	159	35.73%

Mean	.62	.62
SD	.30	.29

Table 3: OLS Regression Analyses of Psychological Well-being on Predictors for Men and Women, Early Adulthood

Age=18-34	Personal Efficacy				Self-Esteem				Perceived Life Quality			
	Male		Female		Male		Female		Male		Female	
	b	t	b	t	b	t	b	t	b	t	b	t
Network size	-0.20	-0.87	-0.15	-0.95	-0.26	-0.99	0.05	0.23	0.09	0.89	0.03	0.47
Network density	0.09	0.10	0.38	0.53	0.79	0.72	1.22	1.40	0.32	0.79	0.20	0.65
White	-0.27	-0.31	0.93	1.18	0.55	0.52	-0.11	-0.11	0.15	0.37	-0.33	-0.96
Black	-2.17	-1.71	0.71	0.79	-1.51	-1.08	0.42	0.39	0.40	0.77	0.01	0.02
Currently married	0.89	1.17	-0.44	-0.94	0.75	0.82	0.02	0.03	0.18	0.52	0.24	1.13
Ever married	1.68	1.10	0.01	0.02	0.94	0.50	-0.40	-0.43	0.07	0.10	-0.05	-0.16
Annual income	0.29*	2.50	0.11	1.55	-0.69	-0.54	-0.22	-0.31	0.36	0.75	-0.13	-0.51
Full time employment	-0.32	-0.40	-0.97*	-2.33	1.40	1.45	-0.28	-0.55	0.58	1.60	-0.18	-0.96
Part time employment	0.62	0.65	-0.57	-1.07	1.59	1.37	-0.24	-0.38	0.81†	1.87	-0.06	-0.27
Attend	0.11	1.12	0.09	1.14	0.01	0.07	0.09	0.96	-0.05	-1.03	-0.03	-0.73
Number of children	-1.32**	-2.80	-0.13	-0.61	-0.81	-1.45	0.19	0.70	-0.14	-0.66	0.05	0.47
Education	0.24†	1.74	0.08	0.97	0.08	0.47	0.13†	1.34	0.08	1.36	-0.01	-0.38
Age	-0.06	-0.75	0.03	0.50	-0.06	-0.60	-0.03	-0.49	0.00	-0.12	0.01	0.55
Intercept	11.11	3.55	13.12	6.99	15.33***	4.72	13.88	5.89	1.85	1.53	3.86***	4.54
R-squared	.38		.10		.18		.06		.15		.07	

†: significant at .1 level *: significant at .05 level; **: significant at .01 level; ***: significant at .001 level

Table 4: OLS Regression Analyses of Psychological Well-being on Predictors for Men and Women, Middle Adulthood

Age=35-54	Personal Efficacy				Self-Esteem				Perceived Life Quality			
	Male		Female		Male		Female		Male		Female	
	b	t	b	t	b	t	b	t	b	t	b	t
Network size	-0.10	-0.48	-0.20	-1.32	0.35*	2.08	-0.14	-0.84	0.09	1.55	-0.08	-1.51
Network density	-0.15	-0.17	-1.06†	-1.68	-0.41	-0.60	0.66	0.98	0.10	0.41	0.33	1.52
White	-2.97	-1.53	-0.82	-0.97	0.38	0.24	-0.25	-0.28	-0.46	-0.84	-0.17	-0.57
Black	-2.71	-1.25	-1.14	-1.10	0.04	0.02	-0.27	-0.24	-0.54	-0.90	-0.10	-0.27
Currently married	0.37	0.28	0.83	1.11	0.30	0.29	1.00	1.35	0.67	1.89	0.11†	0.47
Ever married	0.35	0.25	0.39	0.53	-0.46	-0.42	-0.15	-0.19	0.54	1.41	-0.25	-1.02
Annual income	0.16	0.79	0.13	0.80	-2.37	-1.70	-0.17	-0.15	0.04	0.08	0.39	1.03
Full time employment	0.55	0.73	-0.76†	-1.82	0.59	0.96	0.44	1.02	0.07	0.33	0.14	0.97
Part time employment	0.06	0.04	0.38	0.61	-0.21	-0.18	0.67	1.03	-0.18	-0.44	0.16	0.72
Attend	0.26*	2.58	0.05	0.59	0.10	1.27	-0.03	-0.33	0.03	1.06	0.04	1.70
Number of children	-0.26	-1.17	-0.16	-1.09	-0.17	-0.98	-0.28†	-1.75	-0.18**	-2.93	-0.02**	-0.36
Education	0.01	0.06	0.19*	2.15	0.13	1.56	0.15†	1.72	0.04	1.23	0.06	2.22
Age	0.00	-0.01	-0.03	-0.74	-0.10*	-2.21	0.02	0.46	0.00	0.17	0.00	0.09
Intercept	16.10***	3.57	15.06	6.20	17.25***	5.27	13.70***	6.01	3.30**	2.93	3.10**	4.17
R-squared	.14		.13		.28		.11		.19		.11	

†: significant at .1 level *: significant at .05 level; **: significant at .01 level; ***: significant at .001 level

Table 5: OLS Regression Analyses of Psychological Well-being on Predictors for Men and Women, Older Adulthood

Age=55-89	Personal Efficacy				Self-Esteem				Perceived Life Quality			
	Male		Female		Male		Female		Male		Female	
	b	t	b	t	b	t	b	t	b	t	b	t
Network size	-0.03	-0.15	0.21	1.09	-0.01	-0.07	0.15	0.82	0.12†	1.73	0.00	0.06
Network density	-1.56	-1.54	1.14	1.22	-1.37	-1.31	0.70	0.76	0.07	0.19	-0.08	-0.25
White	-0.01	-0.01	4.41***	4.24	-1.29	-1.17	3.15**	3.05	0.37	0.97	0.37	1.07
Black	0.74	0.53	5.11**	2.99	-0.84	-0.62	1.67	0.98	1.03*	2.22	0.40	0.70
Currently married	0.97	0.79	0.06	0.03	0.25	0.19	1.81	0.80	0.22	0.49	0.89	1.16
Ever married	-0.34	-0.26	-0.21	-0.09	-0.77	-0.55	0.93	0.41	-0.07	-0.14	0.68	0.88
Annual income	0.15	0.77	-0.12	-1.17	-1.71	-1.07	0.49	0.67	0.01	0.02	-0.42†	-1.70
Full time employment	-0.06	-0.10	1.26*	2.18	0.32	0.52	1.43*	2.48	0.44*	2.04	-0.23	-1.16
Part time employment	0.56	0.78	0.91	0.83	0.92	1.24	0.55	0.58	0.52*	2.01	-0.58	-1.86
Attend	0.16†	1.81	0.10	1.10	0.01	0.16	0.11	1.16	-0.04	-1.39	0.04	1.36
Number of children	-0.13	-0.89	-0.28†	-1.68	-0.07	-0.46	-0.11	-0.70	-0.03	-0.53	-0.04	-0.82
Education	-0.10	-1.26	0.27***	3.36	0.00	0.01	0.15†	1.96	0.01	0.46	0.07**	2.67
Age	-0.03	-0.81	-0.01	-0.21	0.05	1.54	0.05†	1.87	0.00	0.23	0.01	0.70
Intercept	18.24***	4.93	8.10*	2.23	15.36	4.63	5.04	1.47	3.00*	2.62	1.77	1.52
R-squared	.22		.35		.17		.26		.24		.22	

†: significant at .1 level *: significant at .05 level; **: significant at .01 level; ***: significant at .001 level.