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ABSTRACT

There is general agreement that subjective experience in a role, i.e. role quality, is a better predictor of both physical and mental health measures than is role occupancy per se. In this study the relationships between two aspects of role quality in women's three social roles (paid employee, partner, and parent) and three health measures (psychological well-being, psychological distress, and physical symptoms) were examined. Subjects (N=403) were women health-care providers, licensed practical nurses and social workers, who varied in partnership and parental status. Role quality was defined as a complex construct consisting of two aspects: level of benefit and level of employment. The results indicated that level of benefit, the rewards minus the concerns women experienced in each of her social roles, was consistently and significantly associated with each of the three health measures. For each social role, those women who reported higher levels of rewards compared to concerns also reported higher levels of well-being, lower levels of psychological distress, and fewer physical symptoms. In sharp contrast, level of involvement, the total amount of rewards and concerns experienced in a role, was a significant predictor in only one model; among employed mothers, higher levels of involvement in the parenting role were associated with reports of more symptoms of psychological distress. (ABL)

Clarification of the Role-Quality Concept[1]

Abstract

This paper examines the relationships between two aspects of role quality in women's three social roles -- paid employee, partner, and parent -- and three health measures, namely, psychological well-being, psychological distress, and physical symptoms. The subjects were 403 women, health-care providers -- licensed practical nurses and social workers -- who varied in partnership and parental status. The sample was a disproportionate, stratified, random sample drawn from the registries of these two professions. Role quality was defined as a complex construct consisting of two aspects: level of benefit and level of involvement. Level of benefit, i.e., the rewards minus the concerns a woman experiences in each of her social roles, was consistently and significantly associated with each of the three health measures. For each social role, those women who reported higher levels of rewards compared to concerns also reported higher levels of well-being, lower levels of psychological distress, and fewer physical symptoms. In sharp contrast, level of involvement i.e., the total amount of rewards and concerns experienced in a role, was a significant predictor in only one model; among employed mothers, higher levels of involvement in the parenting role were associated with reports of more symptoms of psychological distress.

There is general agreement that subjective experience in a role, i.e., role quality, is a better predictor of both physical and mental-health measures than is role occupancy per se (Aneshensel & Pearlin, 1987; Barnett & Baruch, 1986; Deaux, 1988; Rosenberg, 1988; Rosenberg & Gara, 1985, Thoits, 1987). Two indicators of subjective experience have been suggested. Some researchers propose a score reflecting the balance between the subjective rewards and concerns an incumbent experiences in a role (Bradburn, 1969 ; Barnett & Baruch, 1986; Karasek, 1982), others propose level of commitment to or involvement in a role (Veroff, Douvan & Kulka, 1981). In this paper, role quality is defined as a complex construct consisting of the above two aspects: level of benefit and level of involvement. Scant attention has been paid to assessing the relative contribution of these two aspects of role quality to either positive or negative-health measures. This paper examines the relationships between role quality, defined as level of involvement and level of benefit, in each of women's three major social roles -- partner, parent and paid worker -- and three health indicators -- psychological well-being, psychological distress, and physical health.

Our prior work (Barnett & Baruch, 1985, Barnett & Baruch, 1986), has concentrated on the balance construct, (i.e., level of benefit) which reflects the difference between the level of reward and the level of concern experienced in a role. Although the balance score predicts both psychological well-being and psychological distress (Barnett & Baruch, 1985; Baruch & Barnett, 1986), it has potential limitations as a construct. Since a given balance score can be obtained in many different ways, its meaning may be hard to interpret. To illustrate, a small positive balance score can reflect both the net reward of an incumbent who

is highly engaged in a role and, therefore, experiences both a great deal of reward and a great deal of concern and the net reward of an incumbent who is quite indifferent to the role, although slightly more positive than negative about it. The notion of balance (or level of benefit) does not capture the level of involvement construct, which is a distinct and potentially important component of subjective role quality[2]. Thus, role quality is treated here as a theoretically complex construct consisting of at least two components: level of benefit and level of involvement.

Method

Sample

The sample consists of 403 women, ages 25 to 55, who were currently employed at least half time and who resided within a 25-mile radius of Boston. Subjects were drawn randomly from the registries of two health-care professions -- licensed practical nursing and social work. These occupations were selected on the basis of three criteria: (1) they were female occupations; (2) they were high-strain occupations, i.e., presumably characterized by high job demand and low job control; and (3) they had public licensure records, thereby allowing for the identification of populations from which to draw a random sample.

Within each occupation, the sample was stratified on race, partnership status and parental status. The refusal rate was 2.7% of the social workers and 4% of the licensed practical nurses whom we were able to contact. The data to be discussed today are from the first year of a three-year study, and were collected from the fall of 1985 to the spring of 1986. (For a full description of the sampling procedures see Barnett & Baruch, 1988).

Measures

Psychological distress was assessed by the anxiety and depression subscales of the SCL-90-R, a frequency of symptoms measure (Derogatis, 1975). We combined the scores from these two scales both because of the high correlation between them (r = .80) and because of the similarity in the pattern of relationships between the two scales and the other variables of interest. The SCL-90-R has high levels of both internal consistency and test-retest reliability. In this sample, coefficient alpha was .88 for depression and .89 for anxiety.

Psychological well-being was assessed by responses to a 14 -item scale developed by the Rand Corporation (Davies, Sherbourne, Peterson, & Ware, 1985). This scale measures positive affect. Subjects are asked to respond on 6-point scales (from 0 = not at all to 6 = extremely) to such items as, "How often in the past month did you feel relaxed and free of tension? " "How often in the past month did you expect in the morning to have an interesting day?" This scale also has high internal consistency and test-retest reliability. In this sample, Cronbach alpha was .94, which is essentially identical with the .96 figure given by Veit and Ware (1983), who also report a one-year test-retest correlation of r = .64.

Physical symptoms. Respondents were asked to indicate both how frequently in the past year they have had each of thirty symptoms (e.g., dizziness or feeling faint, chest pain, and respiratory congestion, sneezing or stuffy nose), and how much discomfort they were caused by each symptom in the past year. These scales were derived from measures developed by the Mind-Body Program at the Beth Israel Hospital, in consultation with Jane Lesser, an affiliate of that program. By

multiplying the frequency of occurrence by the degree of discomfort for each symptom, we derived a total score for physical symptoms.

Rewards and concerns in the roles of paid employee, partner and parent were assessed using scales constructed from both extensive interviews with approximately 70 women, ages 35 to 55 (See Baruch & Barnett, 1986 for a full discussion) and from focus groups with an additional 40 women, ages 25 to 55. On the basis of response frequency, reward and concern items were identified and used to construct scales. Subjects are instructed to think about their jobs as they are right now (or their relationships with their partners or with their children) and to indicate on a 4-point scale to what extent, if at all, each of the items is rewarding (or of concern). Each subject receives two scores for each social role: a total reward score and a total concern score. Test-retest correlations, computed within three months of the initial interviews on a 10% subsample, were: .88 for both work rewards and work concerns; .87 for partner rewards; .78 for partner concerns; .82 for parent rewards; and .70 for parent concerns.

Level of involvement in a role was operationalized as the sum of the reward and concern scores. High scores on both rewards and concerns indicate that a respondent is reacting strongly to rewarding and troubling aspects of the role; she is neither indifferent to nor complacent about the role. Level of benefit in a role was operationalized as the difference between the rewards and concerns scores. Positive scores indicate that the respondent derives relatively greater reward than concern from the role, negative scores indicate relatively greater concern than reward from the role.

Procedures

Subjects were interviewed in their homes or offices by a trained interviewer. The interviews lasted about 2 hours and covered the rewards and concerns in each of the woman's major social roles, i.e., paid employee, partner, parent, daughter, friend, as well as indices of psychological distress, well-being, and physical symptoms. Data were also collected on such other stress-related topics as social supports, current levels of exercise, and substance use. Respondents were paid a fee of $10 for participating.

Results

Description of the Sample

The mean age of the sample was 39.5 years (sd = 7.4). Roughly half of the sample were partnered (n = 198, 49.1%), and roughly half were mothers (n = 229, 56.8 %). Sixty-one women (15.2%) were black, the remaining 342 (84.8%) were white. On average, the women have been working in their respective occupations for 11 years (range was from 2 to 35 years), and at their current jobs for 6 years. They worked on average 38 hours per week, and 80% worked the same schedule on a regular basis. The mean individual income was $24,400 (sd = $2,700).

Comparison of the two occupational groups indicated no significant differences on the work rewards and work concerns scales. Similarly, there were no significant differences between the two occupational groups on any of the three health measures. Using a dummy variable for occupation, a series of regression models was estimated to test for main and interactive effects of occupation on the three health measures. The main effect of occupation and the

interactions between occupation and ses, race, age, and percapita income were non-significant across the three models. The two occupational groups were, therefore, combined for the analyses reported in this paper.

Relationship between Level of Benefit and Level of Involvement and the Health Measures

As can be seen in Table One, level of benefit in each role was significantly correlated (at $p<.001$) in the expected direction with the three health

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Insert Table One about here

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measures. In contrast, level of involvement was only significantly correlated with psychological distress -- not with well-being or physical symptoms -- for the parenting role; level of involvement in other roles was not correlated with any of the health measures. Thus, level of benefit is more closely associated with health measures than is level of involvement.

A series of regression models was estimated to assess the relationship between the two aspects of role quality and the health measures. For each social role, three separate regression models were estimated with ses[3], age, race, and percapita income as control variables, level of involvement and level of benefit in that role as predictors, and each of the three health indicators as outcomes. The results are discussed separately for each social role.

Paid-Employee Role

As can be seen in Table Two, level of benefit, but not level of

Insert Table Two about here

involvement, was consistently associated with each of the three health measures[4]. The more rewards relative to concerns that a woman experiences in her paid-employee role, the higher her well-being, the lower her psychological distress, and the fewer physical symptoms she reports. Level of involvement was not significantly related to any of the three health measures.

Partner Role

Level of benefit in the partner role, but not level of involvement, was associated significantly with all three health measures, as can be seen in Table Two. In no case did level of involvement reach conventional levels of significance. The more rewards a woman experiences relative to her concerns in her relationship with her partner, the higher her well-being, the lower her psychological distress and the fewer physical symptoms she reports.

Parent Role

As Table Two shows, level of benefit in the parent role was significantly associated with all three health measures, level of involvement was associated with psychological distress. The more rewards relative to concerns a woman experiences in her relationship with her children, the higher her well-being, the lower her distress and the fewer physical symptoms she reports. In addition, the more rewards and concerns a woman experiences, that is, the higher her level of involvement in the parent role, the more symptoms of psychological distress she reports.

Interaction of Involvement and Benefit

To examine the possibility that the relationship between level of benefit and the health measures differed by level of involvement, interaction models were estimated for each role and for each health measure. The variables entered into the models were the four control variables, level of benefit in the role, level of involvement in the role, and the interaction term, level of benefit x level of involvement. Nine interaction models were estimated (for each role, separate interaction models were estimated for each of the three health variables). In no case was the interaction term significant. Thus, the relationships between level of benefit and the three health measures are independent of level of involvement. When the rewards an employed woman experiences in any of her major roles exceeds the concerns she experiences, she derives a health benefit, whether she is very involved in the role or not.

Discussion and Conclusions

The role-quality construct can be thought of theoretically as consisting of both level of involvement and level of benefit. With respect to predicting mental and physical-health outcomes, however, level of benefit was clearly the dominant component. For each of women's major social roles, level of benefit was a significant predictor of well-being, psychological distress and symptoms of physical illness. In contrast, only one out of nine regression models yielded a significant result for level of involvement; among employed mothers, higher levels of involvement were associated with higher levels of psychological distress. Although this finding is consistent with other literature suggesting

that the role of mother is a stressor (see, for example, Barnett & Baruch, 1985; Veroff, Douvan, & Kulka, 1981); it may also be a spurious result. Only future research can determine which of these interpretations is accurate.

Interestingly, the relationship of level of benefit to health measures is independent of level of involvement. In other words, employed women enjoy a health-promoting benefit from having more rewards than concerns in any of their social roles, regardless of whether the role is one in which they are highly engaged or not.

Finally, the findings of this study were generated on cross-sectional data from a sample of employed social workers and licensed practical nurses. It is not known whether the relationships between the role quality components and the health measures would differ among women in other occupations. Nor is it possible to know the direction of effects. For example, women who are high in well-being and low in both distress and in physical symptoms may report a higher level of benefit in each of their roles. Longitudinal analyses of the effects of level of involvement and level of benefit on health outcomes are needed to sort out causal relationships.

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Footnotes

1. Data for this paper were collected as part of a larger, longitudinal project, Occupational Stress among LPNs and SWs, funded by the National Institute on Occupational Safety and Health (#OH - 1968).

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2. Level of benefit also assumes that there are no interactive effects between rewards and concerns in a role and health measures. Previous work suggests that, at least with respect to the paid-employee role, there are significant interactive effects (Barnett, 1988). These findings point to the need to include interactions when examining the relationship between rewards and concerns within a role. In order to study role-quality among roles, however, an overall measure of role quality is needed. For the purpose of developing such a measure, this paper is limited to an examination of the direct effects of rewards and concerns.

3. Based on the results of a principal components analysis, occupation and education were composited to form the SES variable. The SES variable is the sum of the scores for occupation (1= social worker, 2= licensed practical nurses) and number of years of education.

4. A tolerance test was performed to determine whether the set of predictors was colinear. Results for this regression and all the others reported in this paper indicated no problems with colinearity.

Table 1

Intercorrelations Between Role-Quality and Health Measures

	Health Measures		
	Well-Being	Psychological Distress	Physical Symptoms
Paid Employee Role [a]			
Level of Involvement	.01	.05	.04
Level of Benefit	.36***	-.37***	-.21***
Parent Role [b]			
Level of Involvement	-.08	.20**	.04
Level of Benefit	.32***	-.26***	-.23***
Partner Role [c]			
Level of Involvement	.12	.00	-.07
Level of Benefit	.50***	-.38***	-.22***

[a] $N = 403$

[b] $N = 229$

[c] $N = 198$

*$p < .05$; **$p < .01$; ***$p < .001$.

Table 2

Multiple Regressions: Role Quality in Major Social Roles and Health Measures

Predictors[c]	Well-Being B[a]	Well-Being SE[b]	Psychological Distress B	Psychological Distress SE	Physical Symptoms B	Physical Symptoms SE
			Paid Employee Role			
Level of Involvement	.26	1.57	1.57	1.81	.37	2.07
Level of Benefit	5.96***	.79	-7.20***	.91	-4.09***	1.04
R^{2d}	.15		.18		.06	
			Partner Role			
Level of Involvement	1.44	1.61	.46	1.94	-3.10	2.78
Level of Benefit	7.14***	.85	-6.64***	1.02	-4.28**	1.42
R^{2e}	.32		.25		.07	
			Parent Role			
Level of Involvement	-2.05	1.42	4.21**	1.57	-.39	2.09
Level of Benefit	4.78***	1.02	-4.17***	1.13	-4.59**	1.50
R^{2f}	.15		.11		.07	

[a] Unstandardized repression coefficient

[b] Standard error of the coefficient

[c] Each regression included the control variables: socioeconomic status, age, race and percapita income

[d] $N = 371$

[e] $N = 198$

[f] $N = 229$

*$p < .05$; **$p < .01$; ***$p < .001$.