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Factors that affect quality of care among mental health providers: Focusing on job stress and resources

Sadaaki Fukui, Ph.D [Associate Professor],

Indiana University School of Social Work, 902 West New York Street, Indianapolis, IN 46202-5156 USA

Michelle P. Salyers, Ph.D [Professor],

Indiana University-Purdue University Indianapolis, Department of Psychology, 402 N. Blackford St., LD124 Indianapolis, IN 46202-3217 USA

Gary Morse, Ph.D [Vice President],

Research and Development, Places for People, 4130 Lindell Blvd. St. Louis, MO 63108

Angela L. Rollins, Ph.D. [Associate Director]

VA HSR&D Center for Health Information and Communication, Roudeush VAMC; Associate Research Professor, Indiana University-Purdue University Indianapolis, Department of Psychology; Investigator, Regenstrief Institute, Inc., Indianapolis, IN 46202 USA.

Abstract

Objective: High quality, person-centered care is a priority for mental health services. The current study conducted secondary data analysis to examine the impact of job stress (i.e., interaction with high-risk consumer cases, increased caseload, emotional exhaustion) and resources (i.e., increased organizational and supervisory support, autonomy, role clarity) on providers' perceived quality of care.

Methods: Data consisted of 145 direct care providers from an urban community mental health center. Structural equation modeling was used for testing the hierarchical regression model, sequentially adding job stress and resource variables in the prediction models for the quality of care (i.e., person-centered care, discordant care [conflict with consumers and tardiness]).

Results: Person-centered care was positively associated with increased role clarity, organizational support, and larger caseload size, while a lower level of discordant care was associated with lower emotional exhaustion, smaller caseload size, less interaction with high-risk consumer cases, and with increased role clarity.

Conclusions and Implications for Practice: Resources on the job may be particularly important for improved person-centered care, and lowering job stress may help reduce discordant

Contact information: Sadaaki Fukui, Associate Professor, Indiana University School of Social Work, 902 West New York Street, Indianapolis, IN 46202-5156 USA, TEL: 317-278-1767, sadafuku@iu.edu.

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care. The current study suggests the need for the mental health organizations to attend to both job stress and resources for providers to improve the quality of care.

Keywords

quality of care; job stress; support; provider well-being; role clarity

Introduction

High quality, person-centered care is a priority for mental health services to improve consumers' recovery outcomes (Institute of Medicine, 2006). However, the literature has repeatedly shown challenges for delivering quality care to community mental health service consumers. The challenges are reflected by the low rate of consumer access to evidence-based mental health treatment (e.g., Bruns et al., 2016; Kilbourne et al., 2018), little attention to consumer safety and quality of care (D'Lima, Crawford, Darzi, & Archer, 2017), high prevalence of mental health stigma within health care systems (Knaak, Mantler, & Szeto, 2017), and significant health disparities among people with severe mental illness (e.g., Walker, McGee, & Druss, 2015). To fill in the gaps in practice, it is imperative to evaluate the quality of care, and identify factors that can improve the quality in mental health services.

Evaluation of the quality of mental health care can be challenging, given the lack of consensus about what constitutes quality and how to measure it (Kilbourne, Keyser, Pincus, 2010). In the mental health field, diverse population characteristics and service needs (e.g., therapy, medication, case management) along with varying service settings (e.g., outpatient, inpatient) may create additional challenges for evaluation efforts. The Crossing the Quality Chasm report by the Institute of Medicine (IOM) has suggested six domains of care quality, which include safe, effective, patient-centered, timely, efficient, and equitable care (Institute of Medicine, 2001; 2006). The IOM's framework for the quality of care has facilitated some efforts for advancing mental health care evaluation (e.g., Parameswaran, Spaeth-Rublee, & Pincus, 2015).

Researchers have developed a self-report quality of care scale, encompassing the IOM's six domains of quality of care (Luther et al, 2019; Salyers et al, 2015). The revised scale revealed two subdomains of quality of care perceived by those who provide direct services to mental health service consumers (Luther et al, 2019). The two subdomains include person-centered care (capturing the two IOM's quality of care domains; patient-centered and effective care) and discordant care (capturing the relative absence of four IOM's quality of care domains; safe, equitable, efficient, and timely care). These efforts are important steps for evaluating and improving the quality of care. The next logical step is to identify factors that affect the quality of care.

In order to understand factors that may facilitate or hinder the quality of care from providers' perspectives, Le Boutillier et al (2015) conducted a large qualitative study (including focus groups and individual interviews with multidisciplinary clinicians, team leaders, and senior managers). Participants in the study identified tensions around competing priorities at multiple levels of an organization (e.g., healthcare process requirements for

particular types of services, funding and other business priorities, and staff role expectations) as influencing their provision of high quality, recovery-oriented care. Implications included the importance of aligning both provider-focused and organizational and system-level macro-contexts to support the provision of high quality care. Continuing efforts for examining specific factors that improve the quality of care through empirical research is important. In this study, we focus on providers' job well-being and organizational support factors that have critical impacts on the community mental health workforce (e.g., Fukui, Rollins, & Salyers, 2020).

Although empirical research is still scarce, providers' job well-being is considered as an important factor for the quality of care that providers deliver (e.g., Hall, Johnson, Watt, Tsipa, & O'Connor, 2016; Montgomery, Panagopulou, Kehoe, & Valkanos, 2011; Salyers, Bonfils, Luther et al, 2017; Shannon, 2013). Specifically, job related stress, including burnout (characterized by high levels of emotional exhaustion, cynical and negative attitudes, and diminished work accomplishment; Maslach & Jackson, 1984) may have a significant impact on the quality of care. For example, a meta-analysis found a negative association between burnout, particularly emotional exhaustion, and the quality of care among healthcare providers across disciplines (Salyers et al, 2017). Given that mental health providers are constantly exposed to significant stress (e.g., Morse et al, 2012) under increased demand/work pressure (e.g., complications of consumer needs, large caseload) on the job, it is important to examine the impact of job stress on the quality of care they provide (e.g., Salyers et al, 2015).

In addition, job resources, including organizational and supervisory support, and increased job autonomy and clarity (Bakker & Demerouti, 2007), may also be important factors influencing provider quality of care (Ogbonnaya et al, 2018). According to the organizational support theory, when people perceive more support from their organization and supervisors who value and care about their well-being (e.g., job well-being, work-life balance), they are more likely to perform better on the job (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger, 2002). Further, job environments that provide autonomy (e.g., Shirom, Nirel, & Vinokur, 2006) and clear roles (e.g., Acker 2003) could promote work effectiveness, leading to better quality of care.

As described above, there are reasonable assumptions that job stress may negatively affect the quality of care; conversely, job resources may positively affect the quality of care. However, the empirical evidence is still scarce in terms of how job stress and resources uniquely affect the quality of care. For example, Shirom et al (2006) examined the impact of workload, burnout, and work autonomy on the physicians' perceived quality of care for their patients (Shirom, Nirel, & Vinokur, 2006). These factors are likely to be correlated to other job resource factors (e.g., supervisory support; Fukui, Wu, & Salyers, 2019), and we do not know whether job stress has a unique impact on the quality of care after accounting for job resources, or vice versa. Furthermore, we do not know the relative contributions of these factors on different domains of the quality of care. The unique impact of these factors on different care quality domains needs to be further investigated for identifying effective strategies (including both individual and organizational level approaches) to improve providers' care quality.

The current study aims to identify factors that affect the quality of care perceived by the mental health providers who provide direct services in a community mental health center through a quantitative inquiry. Our hypothesis is that increased job stress, measured by the interaction with high-risk consumer cases, more caseload, and higher emotional exhaustion, will reduce the quality of care. We also expect increased job resources, measured by increased organizational and supervisory support, job autonomy, and role clarity, will increase the quality of care. The current study assesses the potential value of supporting provider well-being in pursuit of the primary mission of community mental health organizations: providing high quality care for consumers with mental health conditions.

Methods

Study Sample

In order to test the study hypotheses, we conducted a secondary data analysis from an organizational change study of 145 direct care providers at a large Midwestern urban community mental health center (Dreison, 2018). The center provided inpatient and outpatient services for people with severe and persistent mental illness, seriously emotional disturbed children, and those experiencing substance use disorders. At the time of the original study, the center employed about 500 staff in diverse professional disciplines (i.e., social work, psychology, psychiatry, nursing, occupational and recreational therapy, addiction counseling) at 10 mental health sites and residential facilities. The study participants were recruited from intensive case management teams and outpatient adult treatment teams in the center. The primary study employed an open trial multiple-baseline design with staggered start times. Participants answered online surveys (a non-anonymous survey link was sent to the participants via work email) and received a $10 gift card for the survey completion. The present study used baseline data that were collected prior to intervention. The study participants were mostly female (80%) and white (67%). The average age was 37.8 (±13.7) years old, the average work experience within the agency was 3.6 (±7) years, and 63% held less than graduate degree. The original study was approved by the Indiana University Institutional Review Board.

Measures

Job stress.—Interaction with high-risk consumer cases was measured by whether the providers served in intensive case management teams serving high risk consumers (N=40) or traditional outpatient adult treatment teams (N=100) (information for 5 cases was missing). Caseload size was measured by a single self-report item: “Approximately how many clients do you interact with in a given week?” In order to eliminate the effect of extreme cases, participants reporting a caseload higher than 40 (n=17) were recoded as 40.

Emotional exhaustion (a key component of burnout) was measured by the 9-item Emotional Exhaustion subscale of the Human Service Provider version of the Maslach Burnout Inventory (MBI-HSS; Maslach, Jackson, & Leither, 1996). Participants were asked to report how often they felt each of the 9 items (e.g., “I feel emotionally drained from my work”) on a 7-point response measure (1= Never to 7= Every day). Higher scores indicate higher emotional exhaustion. The scale has previously demonstrated good convergent validity and

internal consistency (Maslach et al., 1996) and has been used in community mental health settings (e.g., Fukui, Rollins, & Salyers, 2020; Morse et al., 2012). In the current sample, Cronbach's alpha was 0.93.

Job resources.—The perceived organizational support scale (Eisenberger, Cummings, Armeli, & Lynch, 1997) was used to assess the level of organizational support, which consisted of eight items (e.g., "My organization really cares about my well-being"). The scale evaluates an employee's perception regarding the degree to which the organization values their contributions and cares about their well-being (Eisenberger, Cummings, Armeli, & Lynch, 1997). The participants rated each of the questions with a 7-point response measure (1= Strongly disagree to 7= Strongly agree). The scale has been shown to have good psychometric properties across different studies (Rhoades & Eisenberger, 2002). In the current sample, Cronbach's alpha was 0.92.

Supervisory support for work-life balance was measured by the 14-item Family Supportive Supervisor Behaviors scale (e.g., "My supervisor is willing to listen to my problems in juggling work and non-work life") (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). The scale measures the multidimensional construct of supervisors' support of providers' non-work life with four subdomains (including emotional support, instrumental support, role modeling behaviors, and creative work-family management) which has good construct, criterion-related, and incremental validity (Hammer, et al, 2009). The participants rated the level of perceived support by their supervisor with a 5-point response measure (1= Strongly disagree to 5= Strongly agree). In the current sample, Cronbach's alpha was 0.97.

Work autonomy (Spector & Fox, 2003) was measured by the 10-item Factual Autonomy scale (e.g., "In your present job, how often do you have to ask permission to take a rest break?") with a 5-point response measure (1=Never to 5=Extremely often/always). The scale was originally developed to reduce subjectivity of self-report measures for assessing work autonomy by using fact-based items. The scale has good convergent and discriminant validity (Spector & Fox, 2003). The scores were reverse-coded in this study, thus higher scores indicate higher work autonomy. In the current sample, Cronbach's alpha was 0.80.

Role clarity (Lyons, 1971) was measured by 5 items (e.g., "How clear are you about the limits of your authority in your present job?"; one item was added to the original 4 items) with a 5-point response measure (1= Not at all clear to 5= Perfectly clear). In the original study, the scale showed good reliability and was correlated with other job outcome measures such as voluntary turnover, propensity to leave, and satisfaction in the expected direction (Lyons, 1971). In the current sample, Cronbach's alpha was 0.88.

Perceived quality of care.—The Perceived Quality of Care scale measured how mental health providers rate the level of quality of care they provide to consumers on 22 items with a 6-point response measure (1=Never to 6=Always). The scale consisted of two subscales; person-centered care (e.g., help a client meet a personal or treatment goal, develop a creative intervention that helped a client) and low levels of discordant care (e.g., delayed response to client requests, missed appointments, making mistakes; items reverse coded to reflect higher quality of care) (Luther et al, 2019). The scale has good internal consistency and content

validity. In the current sample, Cronbach's alpha was 0.86 (12 items) for person-centered care and 0.74 (10 items) for discordant care. The descriptive statistics of the study measures are shown in Table 1.

Data Analysis

Structural equation modeling was used to test a hierarchical regression model for examining the impact of job stress (Step 1) and resources (Step 2) on providers' perceived quality of care for consumers. The stress variables (i.e., interaction with high-risk consumer cases [intensive case management vs. outpatient adult treatment team], caseload size, emotional exhaustion) were first entered into the model with age (in years) and gender (male or female) as covariates. Then, resource variables (i.e., organizational support, supervisory support, job autonomy, role clarity) were added to the model. Increase in the explained variance was examined between the stress (Step 1) and resource (Step 2) models. Full information maximum likelihood estimation method was used to handle the missing data (Enders, 2010). Because of the exploratory nature of the study with limited sample size, we consider the marginal significance (p <.10). Mplus ver. 8.2 was used for the analysis (Muthén & Muthén, 1998–2017).

Results

The correlation matrix among the testing variables is shown in Table 2. The hierarchical regression analyses (Figure 1) revealed that providers who were less emotionally exhausted [β=−.26, p=.005] and older [β=.25, p=.005] reported better person-centered care [R^2=.17]. After adding job resources into the model, increased role clarity [β=.31, p=.006], organizational support [β=.24, p=.038], and higher caseload [β=.21, p=.027] were significantly associated with better person-centered care; however emotional exhaustion and age [p >.10] were no longer significant [R^2=.25]. In assessing associations with discordant care, increased emotional exhaustion [β=−.38, p<.001], working with high-risk consumer cases [β=−.16, p=.059], and higher caseload [β=−.16, p=.049] were negatively related to discordant care (which indicates lower care quality as the items were reverse-coded) [R^2=.25]. After adding resources into the model, increased emotional exhaustion [β=−.23, p=.013], higher caseload [β=−.17, p=.051], and working with high-risk consumer cases [β=−.16, p=.074] still remained as significant factors for discordant care, but the association between more role clarity and less discordant care (better care quality) [β=.30, p=.003] was also found [R^2=.33]. The resource factors significantly improved the prediction in both models (p<.001).

Discussion

Building upon the previous scale development for measuring the quality of care (Luther et al, 2019; Salyers et al, 2015), the current study examined factors impacting quality of care, focusing on job stress and resources perceived by direct service providers in a community mental health center. Our study identified the unique impact of job stress and resources on the different care quality domains, including person-centered care and discordant care.

Factors for person-centered care

For person-centered care, providers who were less emotionally exhausted and older reported better person-centered care (Step 1). However, these factors were no longer significant after adding resources into the model (Step 2). When we only considered the stress factors, emotional exhaustion seemed to be a critical factor for person-centered care, consistent with the finding from a previous meta-analysis of healthcare workers (Salyers et al, 2017). However, once resources were factored, the direct effect diminished. This may be an indication of the strong association between emotional exhaustion and resources on the job, and resource factors may have more unique impact on the person-centered care. Another explanation is that job resources may be more influential for person-centered care practices than job stress. Although job stress and resources were both assessed via provider-level self-report, the job resources assessed in this study (organizational support and role clarity) were fundamentally driven at the organizational or supervisory level, whereas emotional exhaustion is experienced at the individual level. Promoting better person-centered care may require moving beyond the individual-level efforts, including organizational level support and changes (e.g., Aiken, Clarke, & Sloane, 2002; Institute of Medicine, 2001; Le Boutillier et al., 2015)

When both stress and resource factors are considered, the quality of person-centered care seems to be associated with more resource factors than stress factors, especially organizational support and job role clarity. Although we did not have this specific hypothesis, the finding is understandable, given what the person-centered care domain measures. Namely, the person-centered care domain captures positive engagement with consumers to address their specific needs and goals and provide care above and beyond status quo in the mental health practices. For example, the domain evaluates the provision of individualized care, shared decision-making practice, a positive therapeutic alliance, extra care to support consumers' current needs, and so on (Luther et al, 2019). These practices may be jeopardized if the organizational and supervisory support and understanding are absent. Organizational support helps workers achieve work around their goals (Bakker & Demerouti, 2007). An interesting parallel in the burnout literature involves the Job-Demands Resources model (Crawford et al., 2010). This model describes how work demands and resources interact to impact burnout and work engagement. Even within the broad category of job demands, work "challenges" (mission of serving a high needs population) are less predictive of burnout than an accumulation of work "hindrances" (e.g., documentation that keeps the employee from their perceived mission of providing high quality care). Job resources, such as role clarity and organization support, are also predictive of burnout and work engagement. Workers also tend to go beyond assigned work when they feel supported by their organization (Rhoades & Eisenberger, 2002). Further, given that providers often work in team settings in mental health, perceiving more clear roles on the job may be important to promote the quality of person-centered care (Hilts, Howard, Price, Risdon, Agarwal, Childs, 2013; Ly, Sibbald, Verma, & Rocker, 2018).

In addition, interacting with more consumers was associated with better person-centered care. This finding is contrary to our hypothesis. In the literature on community mental health care providers, the effect of caseload size varies. For example, higher caseload size has had

a negative impact on providers' self-perceived work performance (King, Le Bas, & Spooner, 2000), but not on consumer outcomes (Burns, Creed, Fahy, Thompson, Tyrer, & White, 1999). Given that community mental health providers typically assume multiple tasks (e.g., direct care, paperwork, administration), more opportunities for direct consumer interaction may increase the providers' perception for better person-centered care, compared to those with less consumer interaction in daily practice. However, the interpretation requires caution with additional considerations (e.g., caseload size and workload intensity may not always correlate). Future studies to replicate the finding will be needed.

Factors for discordant care

For discordant care, increased emotional exhaustion, working with high-risk consumer cases, and more consumer cases were associated with more discordant care (lower care quality; Step 1). After adding resource factors into the model (Step 2), these variables remained as significant factors for discordant care, but more role clarity was found to be associated with lower level of discordant care (better care quality). Interestingly, discordant care seemed to be associated more strongly with stress factors than with resource factors. Discordant care evaluates negative verbal communications and behaviors, as well as the lack of conscientiousness and dependability when interacting with consumers. Compared to person-centered care that intends to help consumers move forward to meet their needs and goals, negative interactions with consumers may be more directly influenced by the day-to-day stress the providers may experience on the job (e.g., work with high-risk consumer cases, more caseload, and higher emotional exhaustion; Morse et al, 2012).

Finally, for both models, role clarity was found as a consistent and strong factor for the quality of care. Mental health providers often work in team settings. Role clarity is an important component for inter-professional collaborations, which may involve both organizational and provider level competency when collaboratively addressing consumers' care needs (Brault, Kilpatrick, D'Amour, Contandripopulos, et al, 2014), contributing to improved care quality. Role clarity is also related to provider well-being, including reduced burnout (Bakker & Costa, 2014; Green, Albanese, Shapiro, & Aarons, 2014). For these reasons, increasing role clarity may be a critical step that organizations could consider in order to make a difference for both their workers' well-being and for the quality of care.

Study limitations

The current study has some limitations. First, the study used convenience sample from one community mental health center, which limits generalizability. Second, the cross-sectional and correlational design precludes causal associations among variables. Third, due to the secondary data analysis, we were limited in the types of variables we could assess. For example, the level of workforce compensation (which was not available in the original data) might be an important variable to consider in the future study as it could affect the work conditions and quality of care. Fourth, because all measures were based on the self-report, the variable associations might be due to common method variance. Relatedly, the self-report measures may hinder cross-study comparisons. For instance, the participants' reported caseload (i.e., the number of consumers the provider interacts with in a given week) may not be comparable with more objective caseload measures (e.g., the Assertive

Community Treatment high fidelity criteria which measures caseload at the team level in a consumer/provider ratio of 10:1; Monroe-DeVita, Teague, & Moser, 2011). In a similar vein, objective measures of workload intensity (e.g., hours of direct contact) may also be important factors influencing quality of care. Finally, given the exploratory nature of the study with limited sample size, we applied the marginal significance criteria. More strict significance criteria may be considered in the future study.

Implications for practice and research

Despite the limitations, the current study has significant implications for psychiatric rehabilitation practice and research. Most critically, evaluations of healthcare quality and the related factors are still scarce in this field. Although preliminary, the current study identified job stress and resource variables that may uniquely impact the different aspects of quality of care. Because burnout is very common among mental health providers (Morse et al, 2012), and our study found a negative association with quality of care (especially discordant care), it is important for psychiatric rehabilitation providers to be mindful about the status of their well-being and incorporate stress management strategies in daily work settings. Further, our hierarchical regression models showed the significant improvement in the explained variance by adding the job resource factors to the stress factors: together explaining about 30% of the variance in the providers' perceived quality of care. This indicates the need for organizations and supervisors to pay attention to both job stress and resources, which eventually may help improve the quality of care. One potential approach may be to train managers and supervisors in order to increase supervisory support for direct providers that may help improve well-being of providers (e.g., Fukui, Wu, & Salyers, 2019). Such system level efforts eventually may help improve both providers' well-being and the quality of care. Further, given that much of psychiatric rehabilitation and treatment is delivered in team settings, increasing role clarity seems to be a critical step for improving the mental health care quality. Providing workforce training to help providers have clear and realistic expectations and set job boundaries may be beneficial. Finally, for the future research efforts, the current study warrants a longitudinal study to better identify mechanisms among organizational support, provider well-being, and the quality of care, to sort out directionality of the relationships, and to develop strategies to address both providers' well-being and the quality of care they provide for consumers.

Conclusions

Increasing resources on the job may be important for improving person-centered care. In addition, job stress including emotional exhaustion, higher caseload, and interaction with high-risk consumer cases may increase the level of discordant care (e.g., conflict with consumers and tardiness). As the strongest predictor in both models, organizational efforts to improve providers' job role clarity may be particularly important for improving the quality of care in the context of high stress. Longitudinal designs may be required to more rigorously evaluate the variable associations. However, our study indicates the need to increase resources available to providers, particularly role clarity, as a concreate and promising step for improving the quality of care for consumers.

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Impact and Implications

Both lowering job stress and increasing job resources could impact different aspects of quality of care provided by mental health organizations and their workers. Lowering job stress may help reduce discordant care, and resources on the job may be important for improved person-centered care. Increasing job resources within the organization, such as increasing role clarity and organizational support, could be helpful, particularly for improving person-centered care.

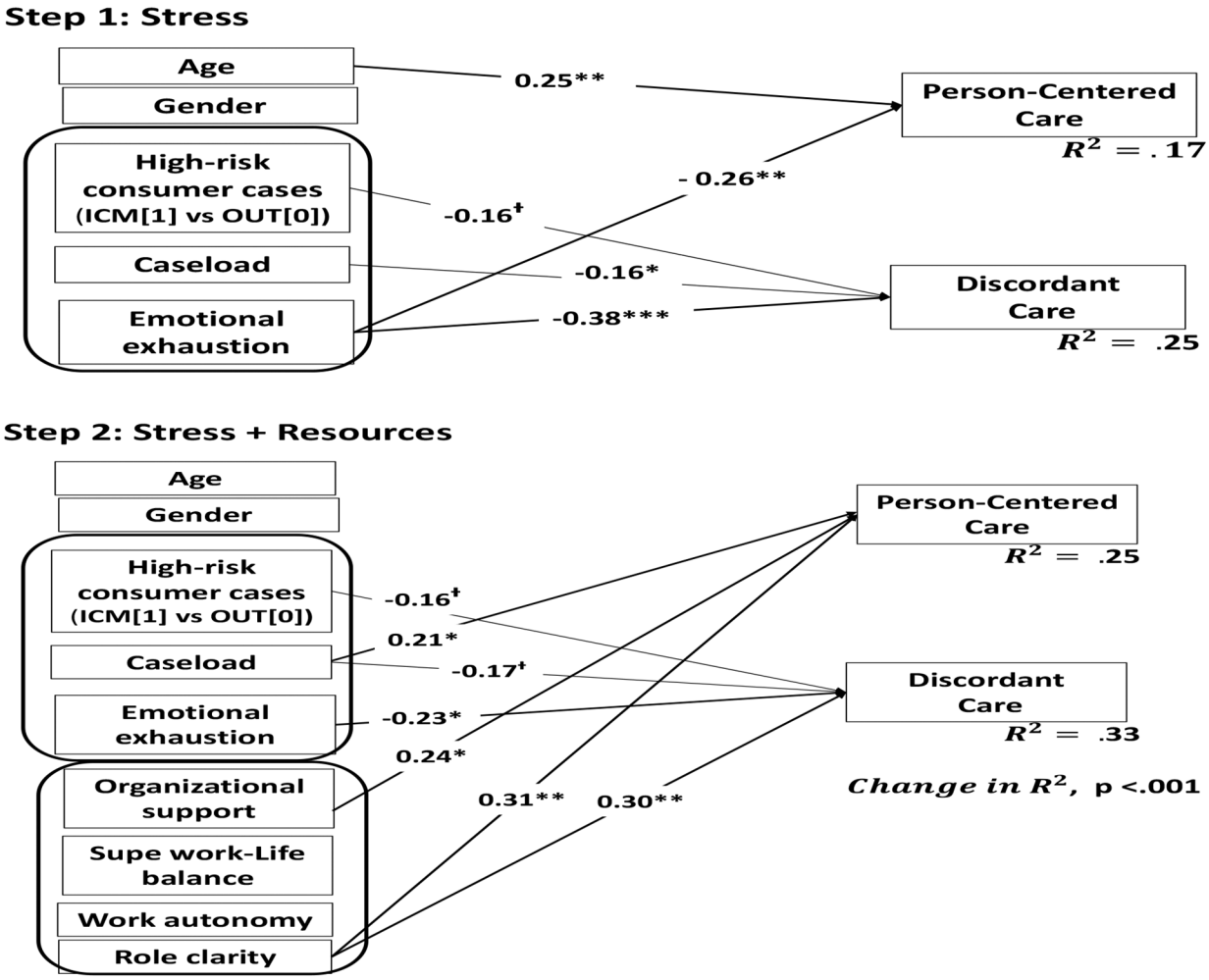

Figure 1.

Hierarchical Regression Model for Predicting Quality of Care

Note: ICM=Intensive case management team; OUT=Outpatient team;

The regression paths are standardized coefficient;

Items were reverse coded for Discordant Care (higher scores reflect better care quality);

† p <.10, * p <.05, ** p <.01, *** p <.001

Table 1

Descriptive statistics of the study measures

	M	SD
Job stress factors		
High-risk consumer cases (Intensive case management team)	*N*=40	28.6%
Caseload (in a given week)	24.4	10.8
Emotional exhaustion	2.15	1.43
Job resource factors		
Organizational support	4.87	1.10
Supervisory support	3.86	0.86
Work autonomy	3.69	0.73
Role clarity	3.49	0.86
Perceived Quality of Care		
Person-centered care	4.61	0.63
Discordant care	4.96	0.48

Table 2

Correlations among job stress, resources, and quality of care

	1	2	3	4	5	6	7	8	9
1. Person-centered care	1								
2. Discordant care	0.12	1							
3. High-risk consumer cases	−0.04	−0.20*	1						
4. Caseload	0.10	−0.24**	−0.03	1					
5. Emotional exhaustion	−0.19*	−0.45***	0.13	0.17†	1				
6. Organizational support	0.21*	0.25**	−0.14	−0.27**	−0.34***	1			
7. Supervisory support	0.06	0.25**	0.04	−0.12	−0.29***	0.54***	1		
8. Work autonomy	0.02	0.26**	0.01	−0.09	−0.32***	0.11	0.28***	1	
9. Role clarity	0.34***	0.47***	−0.02	−0.04	−0.44***	0.41***	0.52***	0.25**	1

Note:

† $p<.10$,

* $p<.05$,

** $p<.01$,

*** $p<.001$