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## Care coordinator assistants: Job satisfaction and the importance of teamwork in delivering person-centered dementia care

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### Abstract

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Declaration of Conflicting Interests

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As the prevalence of persons with dementia increases, a larger, trained, and skilled healthcare workforce is needed. Attention has been given to models of person-centered care as a standard for dementia care. One promising role to deliver person-centered care is the care coordinator assistant. An inquiry about care coordinator assistant's job satisfaction is reasonable to consider for retention and quality improvement purposes. We evaluated care coordinator assistant's job satisfaction quantitatively and qualitatively. This study was part of a Centers for Medicare & Medicaid Services Health Care Innovation Award to the Indiana University School of Medicine. Sixteen care coordinator assistants, predominately female, African American or Caucasian, college graduates with a mean age of 43.1 years participated. Care coordinator assistants wrote quarterly case reports to share stories, lessons learned, and/or the impact of their job and completed the revised Job Satisfaction Inventory and Job in General scales during the second year of the Centers for Medicare & Medicaid Services award. For the Job Descriptive Index subscales promotion, supervision, and coworkers and Job in General, care coordinator assistants scored similar to normative means. Care coordinator assistants reported significantly higher satisfaction on the work subscale and significantly lower satisfaction on the pay subscale compared to normative data. Care coordinator assistants completed 119 quarterly case reports. Job satisfaction and teamwork were recurring themes in case reports, referenced in 47.1% and 60.5% of case reports, respectively. To address the demands of increasing dementia diagnoses, care coordinator assistants can constitute a compassionate, competent, and satisfied workforce. Training care coordinator assistants to work together in a team to address the needs of persons with dementia and caregivers provides a viable model of workforce development necessary to meet the growing demands of this population.

### Keywords

dementia; person-centered care; community-based care; workforce development; interprofessional teams

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### Introduction

Dementia is a prevalent, chronic, and fatal neurodegenerative disorder. Current research estimates that 5.7 million adults in the United States (U.S.) have Alzheimer's dementia (Alzheimer's Association, 2018). Many more adults have other types of dementias as well. Without advancement in preventive therapies and disease modifying treatments, it is estimated that the prevalence of dementia will almost triple by 2050. The care associated with dementia is substantial as it is long-term and costly with a projected national cost of nearly \$277 billion in 2018. By 2050, annual costs are expected to escalate to over \$1 trillion in 2018 dollars. In order to meet the complex demands of persons with dementia (PWD), both unpaid and paid workforces will be needed. Billions of hours of care provided to PWD are unpaid, and less than 1% of healthcare professionals specialize in the care of older adults (Alzheimer's Association, 2018). As the prevalence of and costs of care for PWD continue to rise, a much larger, trained, and skilled healthcare workforce will be needed.

### Person-centered care

As a disease that impacts the person as a whole—that is, the physical, cognitive, and social/emotional wellbeing of both PWD and caregivers—a person-centered framework is necessary to provide best practice, evidence-based dementia care. Particular attention has been given to models of person-centered care as a standard for dementia care in many countries, especially the U.S. and United Kingdom (U.K.) (Brownie & Nancarrow, 2013; Hunter et al., 2013; Kitwood, 1997). In short, person-centered care considers PWD holistically as the mainstay of treatment and encourages self-management and shared decision-making with caregivers (Manthorpe & Samsi, 2016). Numerous studies have demonstrated that person-centered care improves PWD's emotional and overall health status (Brownie & Nancarrow, 2013; Stewart et al., 2000). In particular, for PWD, person-centered care can be extended to include individual choices and having control over their own care. Potentially, this type of “personalization” will support PWD to live longer at home and reduce healthcare costs (Manthorpe & Samsi, 2016). From acknowledgement of the positive outcomes of person-centered care, this approach is now operationalized and implemented within the health workforce. General and formal trainings are commonplace (Maslow, Fazio, Ortigara, Kuhn, & Zeisel, 2013). However, there are challenges in delivering person-centered care, including workforce shortages and recruiting and retaining skilled staff (Low, White, Jeon, Gresham, & Brodaty, 2013). Of particular consideration is job retention of well-trained quality care workers as this can potentially translate to better outcomes for PWD and less costs over time. An inquiry about workers' reception to and satisfaction with innovative training is therefore interesting as well as reasonable to consider for retention and quality improvement purposes.

### Job satisfaction and workforce retention

Job satisfaction is a multifaceted term that relates to the amassed feelings a worker has about their job. There are several overlapping and distinct features of job satisfaction (Smith, Kendall, & Hulin, 1969). Satisfaction within the many occupations of the healthcare workforce has been evaluated extensively (Gillespie et al., 2016; Oleckno & Blacconiere, 1995; Shahnazi, Daniali, & Sharifirad, 2014). Job satisfaction of providers caring for older adult populations has also been examined (Castle, Degenholtz, & Rosen, 2006; Murphy, 2004; Salmond & Ropis, 2005; Suhonen, Charalambous, Stolt, Katajisto, & Puro, 2013). However, fewer studies have considered job satisfaction when caring for people with dementia (Zwijnsen et al., 2015). Due to the shortage of providers and the long-term, cost-heavy demands that come with dementia care, understanding determinants of job satisfaction is essential to prevent significant burnout and turnover and necessary to retaining a highly skilled workforce.

There are many aspects that are critical for retention of a workforce providing person-centered care. Using a comprehensive, integrative analysis, Vernooij-Dassen et al. (2009) note that job satisfaction is the main determinate of leaving dementia care jobs. Among their enumeration of positive influencers of job satisfaction is having good spirits with coworkers and the training and delivery of person-centered care. The workforce itself does seem to benefit from a collaborative care standard. Several studies have shown higher rates of satisfaction when staff have the capacity to communicate, work as a team, and provide good

quality, individualized care (Brownie & Nancarrow, 2013; Castle et al., 2006; Lehuluante, Nilsson, & Edvardsson, 2012; Lewis et al., 2012; Rathert & May, 2007; Vernooij-Dassen et al., 2009). Yet the majority of these studies have focused on older adult populations in general and not specifically dementia care. In order to evaluate job satisfaction in dementia care, we analyzed a unique, collaborative, person-centered care trained workforce called care coordinator assistants (CCAs) (Alder, LaMantia, Austrom, & Boustani, 2015; LaMantia et al., 2016).

### **Care coordinator assistants**

In order to provide cost-effective, high quality person-centered care, innovative frontline care providers are necessary. One promising type of worker is a CCA (Alder, Callahan, Boustani, Hendrie, & Austrom, 2012). Such aides have been recruited and trained at Eskenazi Health in Indianapolis, Indiana as part of a Centers for Medicare & Medicaid Services (CMS) Health Care Innovation Award received by the Indiana University Center for Aging Research. Working under a “mobile memory care practice” within the Aging Brain Center Medical Home Program, these CCAs undertake a substantive care role for patients and caregivers (Callahan et al., 2011; Cottingham, Alder, & Austrom, 2014). Supervised by a registered nurse and social worker, they utilize a person-centered framework with home visits and telephone consultations (Cottingham et al., 2014; Monahan et al., 2012). Not only are CCAs endowed with intrinsic traits of caring, compassion, and empathy but they also possess the core interpersonal and analytical skills that person-centered dementia care demands (Brownie & Nancarrow, 2013; Cottingham et al., 2014). At 1-year evaluations from supervisors, CCAs had high performance ratings regarding being a good fit for the job, developing rapport, demonstrating empathy, prioritizing work, maintaining equanimity, and supporting collaboration. In addition, after 1 year, CCAs had a high retention rate of 86% (Cottingham et al., 2014). After the second year, retention remained high at 76% (Austrom et al., 2016).

Following the success of the implementation of the CCA position, we examined job satisfaction and teamwork factors among them to retain employment. We evaluated the nuances of job satisfaction quantitatively through a survey and qualitatively through analyses of employees’ quarterly case reports about their experiences. Due to the interdisciplinary and collaborative nature of their role as a CCA, we hypothesized that CCAs would endorse their general work duties and teamwork very positively.

## **Methods**

### **Institutional review**

This study was submitted to the Indiana University Purdue University at Indianapolis Institutional Review Board upon receipt of the CMS Innovation Award. As evaluations were performed as part of an evaluation of an ongoing clinical program, the study was exempt.

### **Participants**

CCAs were the research participants. As part of the CMS Innovation Award, CCAs were recruited and trained in person-centered care, use of mobile office, electronic medical record

system, community resources, and team member support. CCAs schedule and visit PWD and caregivers wherever it is most convenient for them to meet including their home, clinic, or community venue, administer person-centered needs assessments, deliver care protocols, monitor medication adherence, and manage data entry. Detailed descriptions of CCA recruitment, hiring, training, and development have been described elsewhere (Alder et al., 2015; Austrom et al., 2016; Cottingham et al., 2014).

### Data collection

As part of the CMS Innovation Award, CCAs wrote quarterly case reports to share representative success stories, lessons learned, and/or describe a particularly meaningful impact of the intervention. CCAs also completed the revised Job Descriptive Index (JDI) and Job in General (JIG) scales (Balzer et al., 1997; Ironson, Smith, Brannick, Gibson, & Paul, 1989; Smith et al., 1969) during the second year of the 3-year award. The JDI measures job satisfaction across five domains (work, pay, promotion, supervision, and coworkers), while the JIG measures job satisfaction in general. The domains consist of 18 items (pay and promotion subscales have 9 items) with possible responses of “Yes,” “No,” or “?” (if the respondent cannot decide) and scoring of 3, 0, or 1, respectively. Subscale totals are out of a maximum of 54 (pay and promotion subscale totals are multiplied by 2). Systemic reviews and meta-analyses have demonstrated consistently adequate reliability and construct validity for the JDI and JIG (Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002; van Saane, Sluiter, Verbeek, & Frings-Dresen, 2003). Percentile normative data for the JDI and JIG are also available (Gillespie et al., 2016).

### Analysis

Results were analyzed using IBM SPSS Statistics 23. Means and frequencies were computed for demographic items. Mean scores were computed for JDI and JIG subscales, equated to normative overall and the subgroup “healthcare and social assistance” percentile ranges, and compared to overall normative mean scores using Welch’s unequal variances *t*-tests (Gillespie et al., 2016). Statistical significance was set at  $\alpha = 0.05$ .

For quarterly reports, each case was read, minor edits made for typos, and entered into QSR NVivo 10 (Bergin, 2011). Two reviewers with backgrounds in social psychology and social work reviewed each case to identify recurrent conceptual codes or themes that were considered inherent to person-centered care. Each of these themes was identified within the case reports by association with words or language, and each instance that a theme was identified was recorded. For the purposes of this study, the themes “job satisfaction” and “teamwork” were utilized (detailed description of other themes are described elsewhere) (Austrom et al., 2016). Due to the broad characterization of the theme teamwork, subthemes related to teamwork were examined by content analysis of the quarterly case reports.

## Results

### CCA demographics

Sixteen CCAs participated in this study (see Table 1). Mean age was 43.1 years. Majority of CCAs identified as female (81.3%), African American or Caucasian (50.0%, 50.0%), married (68.8%), and college graduate (62.5%).

### CCA job satisfaction

Fourteen CCAs completed the JDI and JIG (see Table 2). For the JIG subscale, CCAs responded positively ( $M = 43.50$ ,  $SD = 10.97$ ) and ranked in a 47th–48th percentile range of overall normative data and 39th–46th percentile of the subgroup of healthcare and social assistance occupations. For the JDI, CCAs were similar to normative means on the promotion ( $M = 18.14$ ,  $SD = 14.58$ ), supervision ( $M = 32.64$ ,  $SD = 18.72$ ), and coworker ( $M = 44.43$ ,  $SD = 8.76$ ) subscales. CCAs' satisfaction with promotion, supervision, and coworkers tiered within the 54th/55th, 27th–30th/24th–25th, and 48th–53rd/41st–45th percentile range for overall and healthcare normative data, respectively. CCAs responded significantly higher on the work subscale ( $M = 45.07$ ,  $SD = 8.52$ ) compared to normative data ( $M = 37.91$ ,  $SD = 13.97$ );  $t(13) = 3.11$ ,  $p = 0.008$ . Likewise, they were within the 64th–66th and 52nd–66th percentile ranges for overall and healthcare normative data, respectively. On the pay subscale, CCAs reported significantly less satisfaction ( $M = 19.29$ ,  $SD = 16.95$ ) than normative data ( $M = 32.05$ ,  $SD = 17.46$ );  $t(13) = -2.92$ ,  $p = 0.015$ . Similarly, they ranked within the 29th/37th percentile ranges for overall and healthcare normative data, respectively.

### CCA quarterly reports

CCAs completed 119 quarterly case reports (see Table 3). Job satisfaction and teamwork were recurring themes in case reports. Job satisfaction was referenced 65 times in 56 cases (47.1%). Teamwork was referenced 98 times in 72 cases (60.5%). Content analysis identified three subthemes related to teamwork: teamwork with care team (70 references in 44.5% of all cases), teamwork with PWD and caregivers (45 references in 36.1% of all cases), and teamwork with supervisors (22 references in 17.6% of all cases). Job satisfaction and teamwork were referenced together in 36 cases (30.2%).

### Case report examples of job satisfaction and teamwork themes

Below are CCA quotes from several case reports that highlight the job satisfaction and teamwork themes. The following cases illustrate job satisfaction and show how CCAs interact with multiple members of the team to provide the best possible care for patients.

Our entire team worked together to provide the PWD and family with the information and resources to really make a difference in their lifestyle and healthcare.

I realize I am here for my patients but at times, my patients are here for me too and give words of wisdom that I need.

Their daughter asked if we could help with getting them a wheelchair and hospital bed. I talked with my social worker and also with CICOA [the local Area Agency on Aging] and we were able to help provide the hospital bed and wheelchair for my PWD to make it easier for the family to take care of them.

Finally, after a few impromptu home visits, RN, CCA, and PCP were able to convince PWD to consent to inpatient treatment.

With a great team effort, we were able to make a tremendous impact on the lives of both the PWD and their sister.

This PWD has also helped me in seeing the importance of this program and what my team and I accomplish on a daily basis.

## Discussion

### Job satisfaction as a CCA

We compared job satisfaction among CCAs to normative data. As Gillespie et al. (2016) point out, it is difficult to ascertain employees' frame of reference, and many reference groups could reside within an individual employee. Therefore, utilizing overall normative data may be a better, more useful approach than making comparisons to subgroup norms. Here, we reported both the overall and subgroup norm of healthcare and social assistance workers to deduce meaningful contrasts. When considering where CCAs rank within overall normative percentiles and the healthcare and social assistance subgroup percentiles, there were interesting distinctions. For instance, for all job satisfaction subscales except pay and promotion, healthcare percentile ranks were lower than overall percentile ranks. Although discussion of these noteworthy differences is out of the scope of this paper, we do acknowledge that employees perceive components of job satisfaction differently depending on the type of workforce. Therefore, we discuss CCAs percentile ranks across the spectrum of overall and healthcare subgroup normative data.

Because the healthcare subgroup has only percentiles published and not means, we compared CCAs' mean job satisfaction scores to overall normative mean scores. We found that job satisfaction among CCAs was comparable to normative data. In particular, CCAs responded similarly in terms of the job aspects relating to promotion, supervision, coworkers, and JIG. CCAs responded differently to normative data about their satisfaction with work and pay. CCAs scored significantly higher in their perceptions about the work itself (a 52nd–66th percentile rank) and significantly lower in their beliefs about pay (a 29th–37th percentile rank) when compared to normative data.

Of particular importance was the work subscale of the revised JDI. This subscale is very meaningful as studies have noted it has the strongest association to JIG and overall job satisfaction than the rest of the JDI subscales (Dalal & Credé, 2013; Gillespie et al., 2016). We found similar results: the work subscale had the strongest association to JIG than the other subscales ( $a = 0.68$ ,  $p = 0.007$ , data not shown). CCAs reported significantly higher satisfaction in work than normative data. Since we did not measure overall job satisfaction specifically, we may infer that CCAs have high overall job satisfaction as well. However,

CCAs responded significantly lower than normative data on the pay subscale. It is interesting that while CCAs may perceive their pay to be subpar they nonetheless perceive their work and JIG (hence, their overall job satisfaction) positively. Although we did not evaluate the nuances leading to low satisfaction with pay, this may be due to CCAs knowing that their role was part of a CMS demonstration project and may not continue past the end of the 3-year award. It would be worthwhile for future studies to consider how much weight is given to this component of a job and its effect on overall satisfaction.

In order to further examine CCAs perceptions concerning job satisfaction, we analyzed satisfaction through qualitative analyses of case reports. We found that CCAs report job satisfaction often—nearly half of all case reports mentioned job satisfaction. This reporting parallels the positive response on the JIG and JDI work subscale.

### **Teamwork as a CCA**

Teamwork is an important aspect of job satisfaction. Past studies have shown that good spirits with coworkers and good communication between staff and executive personnel contribute to better job satisfaction outcomes (Castle et al., 2006; Vernooij-Dassen et al., 2009). Due to the collaborative nature of the CCA position, we also explored teamwork as a determinate of job satisfaction. In particular, CCAs scored slightly higher on coworker satisfaction (a 41st–53rd percentile rank) and slightly lower on supervision satisfaction (a 24th–30th percentile rank) than normative data, although neither reached statistical significance. Likewise, these subscales were the only other subscales that were significantly correlated to JIG (coworkers:  $a = 0.61$ ,  $p = 0.020$ , supervision:  $a = 0.63$ ,  $p = 0.016$ , data not shown). For CCAs, the components of coworkers and supervisors seem to contribute to job satisfaction in unique ways.

To further examine the aspect of teamwork, we evaluated case reports for this theme. We found that CCAs reported teamwork in 60% of case reports. Subthemes of teamwork were also mentioned frequently. The “teamwork with care team” subtheme was present the most in 45% of cases and the “teamwork with supervisors” subtheme was present the least in 18% of reports. This variation corresponds to the JDI subscale scores with a slightly positive coworker response and slightly negative supervision response. For CCAs, there seems to be more importance and satisfaction with coworkers than supervisors. Job satisfaction and teamwork were mentioned together in 30% of case reports and perhaps a coworker component, rather than the supervision within the job, is what contributes to high overall job satisfaction and high retention as a CCA.

### **Limitations**

There are a few limitations in this study. First, a small sample of CCAs participated, although we were able to compare their JDI results to the JDI normative sample of similar health care workers. Second, CCAs received extensive dementia care and person-centered care training as part of the CMS Innovation Award and make them a unique group among frontline dementia care workers who typically do not receive this level of training.



## Conclusion

Dementia care is onerous and expensive, requiring a highly trained, skilled workforce that can deliver person-centered care. Retaining such staff is paramount to the maintenance and progression of better health outcomes for PWD. In order to maintain the specificity of dementia care and retain workers, CCAs may offer a unique, compassionate, competent, and highly satisfied workforce. As we have shown, high job satisfaction can be attained with a collaborative, person-centered care focused team. Not only the work itself but the interdisciplinary and collaborative nature of being a CCA may contribute to satisfaction and high retention rates. Thus, training CCAs to work together in an interdisciplinary and collaborative team to address the needs of PWD and their caregivers may provide a viable model of workforce development necessary to meet the growing demands of the population (Alder et al., 2015; Austrom et al., 2016; LaMantia et al., 2016).

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**Table 1.**Participant demographics ( $N=16$ ).

	<i>M (SD) or n (%)</i>
Age (years)	43.1 (11.5)
Gender	
Male	3 (18.8)
Female	13 (81.3)
Race	
African American	8 (50.0)
Caucasian	8 (50.0)
Education	
High school diploma	6 (37.5)
Associate degree	3 (18.8)
Bachelor's degree	7 (43.8)
Marital status	
Married	11 (68.8)
Single	4 (25.0)
Divorced	1 (6.3)

**Table 2.**JIG and JDI subscale mean scores ( $N = 14$ ) and comparative normative data.<sup>a,b,c</sup>

	<i>M (SD)</i>	Normative percentile ranges (overall, subgroup healthcare and social assistance) <sup>d</sup>	Normative <i>M (SD)</i>	<i>t(df)</i> <sup>e</sup>	<i>p Value</i> <sup>f</sup>
JIG	43.50 (10.97)	47–48, 39–46	40.68 (13.21)	0.95 (13)	0.357
JDI subscales					
Work	45.07 (8.52)	64–66, 52–66	37.91 (13.97)	3.11 (13)	<b>0.008</b>
Pay	19.29 (16.95)	29–29, 37–37	32.05 (17.46)	–2.92 (13)	<b>0.015</b>
Promotion	18.14 (14.58)	54–54, 55–55	22.07 (18.81)	–1.00 (13)	0.335
Supervision	32.64 (18.72)	27–30, 24–25	39.18 (14.96)	–1.30 (13)	0.215
Coworkers	44.43 (8.76)	48–53, 41–45	39.95 (14.28)	1.89 (13)	0.081

<sup>a</sup>JIG: Job in General.<sup>b</sup>JDI: Job Descriptive Index.<sup>c</sup>Comparative normative data is from Gillespie et al. (2016). For overall participants,  $N = 1485$ . For the subgroup of healthcare and social assistance participants,  $N = 178$ .<sup>d</sup>Percentile range defined by lower and upper bound scores around participant means.<sup>e</sup>Welch's unequal variances *t*-tests were performed.<sup>f</sup>Bolded items are statistically significant at  $\alpha = 0.05$ .

**Table 3.**Person-centered care themes in CCA quarterly case reports ( $N= 119$ ).<sup>a</sup>

Theme	$n$ (%) <sup>b</sup>	Total number of references <sup>c</sup>
Job satisfaction	56 (47.1)	65
Teamwork	72 (60.5)	98
Teamwork with care team	53 (44.5)	70
Teamwork with patient and caregivers	43 (36.1)	45
Teamwork with supervisors	21 (17.6)	22
Job satisfaction and teamwork	36 (30.2)	–

<sup>a</sup>CCA: care coordinator assistant.<sup>b</sup>Number of times a theme was identified in 1 of the 119 cases.<sup>c</sup>Total number of times a theme appears in cases. Themes were sometimes mentioned more than once in individual case reports.

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