Evaluating the Effects of an Intervention to Increase Feedback as a Social Job Resource

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Dayan M. Maas

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Julie Slowiak, Ph.D., BCBA, Chair

Ashley Thompson, Ph.D.

Jolene Hyppa-Martin, Ph.D., CCC-SCP

University of Minnesota Duluth

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Abstract

While research on general job crafting interventions that attempt to increase a variety of employee resources exists (Gordon et al., 2018; van Wingerden, Bakker, & Derks, 2017; van Wingerden, Bakker, & Derks, 2016), none have evaluated interventions that only target increasing social job resources. The current study assessed the effectiveness of a job crafting intervention to increase feedback-related behaviors (giving, seeking, receiving, and accepting feedback) in order to improve levels of job crafting, job satisfaction, work engagement, and burnout. A multiple-baseline design was used to assess the effectiveness of the intervention in three departments within a combined hospital and clinic environment. It was hypothesized that individuals' levels of job crafting behavior, job satisfaction, and work engagement would increase after the intervention, while individuals' levels of burnout would decrease following the intervention. Findings revealed no significant changes in levels of job crafting, work engagement, or burnout, and levels of job satisfaction decreased following the intervention. Findings indicate that a targeted job-crafting workshop may not have a greater impact on levels of job satisfaction, work engagement, or burnout than a more general job-crafting workshop. Additionally, findings suggest post-workshop support is needed to maintain initial increases in observed job crafting behavior.

Keywords: job demands, job resources, job crafting, feedback, multiple-baseline design

Table of Contents

List of Tables

List of Figures

Introduction

In 2004, 26% of Americans reported they felt overworked "often" or "very often" (Families and Work Institute, 2004). Findings from a recent survey indicate that organizations are aware of the impact of job demands on employees, as 46% of human resource leaders believe that employee burnout (i.e., the feeling of persistent exhaustion, cynicism, and lowered efficacy; Hakanen & Bakker, 2017) is responsible for workforce turnover (Kronos Incorporated & Future Workplace, 2016). High levels of burnout are prevalent among healthcare professionals. For example, 45.8% of physicians report having at least one symptom of burnout, and those in family, general internal, and emergency medicine report some of the highest rates of burnout at over 50% of physicians (Shanafelt et al., 2012).

Furthermore, energy depletion, which can result from exhaustion related to burnout, has been shown to lead to longer absences from work (Bakker, Demerouti, & Schaufeli, 2003). Research supports the link between turnover and burnout (Hilton, 2016; Schouteten, 2017), with which both a lack of social support and feedback have been associated (Maslach, Schaufeli, & Leiter, 2001). Turnover rates for bedside registered nurses were reported at 14.6%, which can cost a hospital $5.13 million to $7.86 million each year (NSI Nursing Solutions, 2017). Employee burnout associated with a decrease in or lack of social resources necessary could, therefore, cost the organization money through both absenteeism and turnover. The purpose of the current study was to increase social job resources (i.e., the components that are vital to achieving goals, encouraging personal growth, and minimizing job demands, including things such as feedback and social support at work; Crawford, LePine, & Rich, 2010) in a health care setting to promote a positive work environment wherein health care professionals are supported

and are able to effectively give, seek, and receive performance feedback. Increases in feedback-related behaviors were then expected to impact levels of social job resources, job satisfaction, work engagement, and burnout.

As organizations continue to value production while minimizing costs, the wellbeing of employees can often be overlooked. While many definitions of wellbeing exist across disciplines, the Centers for Disease Control and Prevention (CDC, 2016) note that a common theme among these definitions is that wellbeing encompasses the presence of positive emotions and moods, satisfaction with life, and a general positive functioning of the individual, in addition to the absence of negative circumstances. Dodge, Daly, Huyton, and Sanders (2012) describe wellbeing like a see-saw with resources on one end and challenges on the other. If challenges outweigh resources, wellbeing decreases; likewise, if resources outweigh challenges, wellbeing increases. As such, when a stable level of wellbeing is attained, individuals possess psychological, social, and physical resources necessary to respond effectively to challenges they face (Dodge et al., 2012). Kreitzer and Goldblatt (2014) propose six dimensions that contribute to wellbeing (i.e., health, purpose, relationships, community, safety and security, and environment), and they suggest that focusing on self-care behaviors within these six dimensions can help to prevent or reduce burnout.

Increasing feedback-related behaviors promotes self-care practices in the form of seeking and obtaining social resources that support individual wellbeing within the context of their work environment. Performance feedback is one of the most widely used performance-enhancing strategies in the work place. Therefore, implementing an intervention that targets specific feedback-related behaviors could help to maximize the effectiveness of feedback as a social job

resource. Ilgen, Fischer, and Taylor (1979) identified three components of feedback to consider in order to increase its effectiveness: perceptions of feedback, acceptance of feedback, and responding to feedback. Therefore, the present study sought to evaluate an intervention designed specifically to increase feedback giving, feedback seeking, and feedback receiving and accepting as a way to increase employees' social job resources.

While feedback has been related to improved performance (e.g., Alvero, Bucklin, & Austin, 2001; Balcazar, Hopkins, & Suarez, 1985), it has also been positively related to job satisfaction (r = .38; Hackman & Oldham, 1976). As job satisfaction has been found to have a negative relationship to burnout (Akman, Ozturk, Bektas, Ayar, & Armstrong, 2016), it seems reasonable to expect that an increase in the frequency of feedback-related behaviors might be associated with lower levels of burnout, improved job satisfaction, and work engagement. Job satisfaction and work engagement have been shown to have a negative relationship with turnover while burnout has a positive relationship with turnover (Halbesleben, 2010; Skelton, 2018). Based on the assumptions of the JD-R model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; described in detail below), the relationship among job demands, job resources, psychological states, and employee outcomes (van Wingerden, Bakker, & Derks, 2017) may impact levels of employee wellbeing. Specifically, an intervention that leads to an increased frequency of feedback-related behaviors (i.e., social job resources) may also lead to improved measures of employee wellbeing (e.g., improved job satisfaction and work engagement).

One way to address problems associated with burnout may be to give employees the opportunity to craft aspects of their job (Petrou, Demerouti, & Schaufeli, 2015; Tims, Bakker, & Derks, 2012; van Wingerden et al., 2017). Job crafting involves either physical or cognitive

changes that employees make in their work tasks and relational work boundaries, such as deciding whom to interact with while on the job (Wrzesniewski & Dutton, 2001). This is described as a bottom-up, employee driven approach to job redesign rather than a top-down, management driven approach (Wrzesniewski & Dutton, 2001). Job crafting interventions typically involve a broad focus related to a wide variety of crafting behaviors within multiple job crafting dimensions (Tims et al., 2012) and have been associated with higher levels of employee wellbeing, such as work engagement (e.g. Gordon et al., 2018), higher levels of basic need satisfaction (i.e., the need for autonomy, competency, and belongingness; van Wingerden et al., 2017), and lower levels of exhaustion (e.g. Hakanen, Seppälä, & Peeters, 2017). This provides a unique opportunity for the current project to evaluate whether an intervention to increase behaviors associated with a single dimension of job crafting (i.e., social job resources) would produce a larger, positive effect and lead to wider spread (multi-level) and consistent behavior change within the organizational context in comparison to more general job crafting interventions.

Theoretical Background

Job Demands-Resources Model

The Job Demands-Resources (JD-R) model (Demerouti et al., 2001) proposes that every job has two components that can lead to stress: job demands and job resources (Bakker & Demerouti, 2007). The model defines job demands as "those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs" (Demerouti et al., 2001, p. 501). Some examples of demands include high work pressure or working in an unfavorable physical

environment (Bakker & Demerouti, 2007). Job resources are the physical, psychological, social, or organizational aspects of the job that seek to help in achieving work goals, reducing job demands while also decreasing psychological and physiological costs, and activating individuals' own personal growth and development (Demerouti et al., 2001). Some examples of job resources include pay, co-worker support, role clarity, autonomy, and performance feedback (Bakker & Demerouti, 2007). Figure 1 depicts the JD-R model.

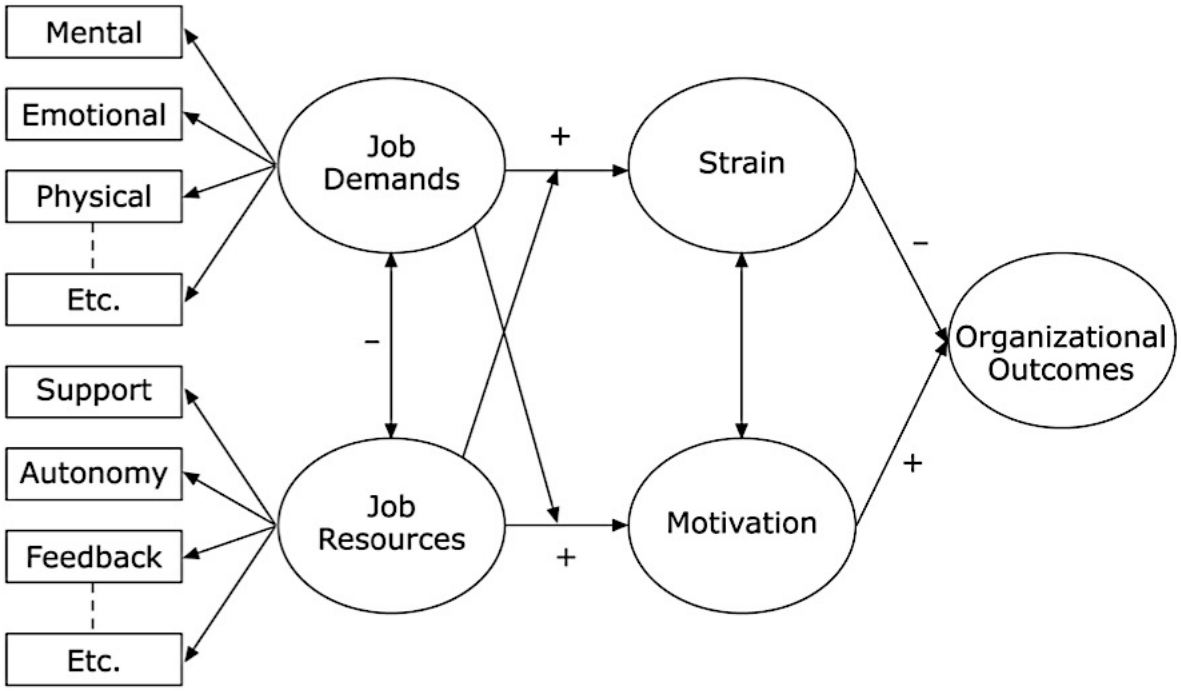


Figure 1. The Job Demands-Resources Model (Bakker & Demerouti, 2007, p. 313).

The JD-R model also proposes two processes related to the development of job strain and motivation: a health impairment process and a motivational process (Bakker & Demerouti, 2007). Health impairment occurs when job demands, such as work overload, drain an employee's resources that could lead to a loss of energy and then to health problems. High job demands in the energy depletion process (i.e., health impairment) can lead to longer absences due to health problems.

The motivational process acts in the opposite way of the health impairment process as it consists of job resources (e.g., social support and performance feedback) that can make individuals less inclined to leave the organization. Bakker and Demerouti (2007) assert that the job resources in the motivational process lead to higher work engagement, lower cynicism, and greater performance. These job resources can play either an intrinsic role, such that they help to promote development and growth, or an extrinsic role, such that they are required to accomplish work-related goals. Motivation is most influenced by job resources when job demands are high (Bakker & Demerouti, 2007); individuals are more highly motivated to retain their job resources under high job demands.

Bakker et al. (2003) found that the JD-R model explained nine percent of the variance in self-reported absenteeism and 60% of the variance in turnover intentions. This finding supports the contention that individuals who have adequate job resources may be better able to cope with the job demands and, as a result, would be less likely to leave the organization. As a result, organizations may save money related to both the recruitment and training of new employees. Job crafting interventions can be used to examine this theory. Specifically, tailoring demands and tasks through the use of job crafting techniques may support the motivational process described within the JD-R model, while simultaneously reducing the health impairment process.

Job Crafting

Job crafting involves the redesign of work experiences and focuses on how employees change certain aspects of their jobs (Yepes-Baldó, Romeo, Westerberg, & Nordin, 2018). Simply stated, employees engage in job crafting when they alter or tweak their on-the-job behaviors. Tims et al. (2012) created the Job Crafting Scale (*JCS*) utilizing an exploratory factor analysis to

evaluate four dimensions of job crafting: increasing structural job resources, increasing social job resources, increasing challenging job demands, and decreasing hindering job demands. Job resources are job components that are vital to achieving goals, encouraging personal growth, and minimizing job demands, including things such as feedback and social support at work (Crawford et al., 2010). Some examples of job demands are workload, time pressure, and a difficult physical environment (Crawford, et al., 2010).

Van Wingerden et al. (2017) found individuals' levels of job crafting behaviors increased after they had participated in a job crafting intervention. Van Wingerden et al. (2017) compared the effects of a job crafting intervention between two groups of teachers, one of which served as a control group. The intervention consisted of developing proactive goals, discussing those goals, and refining those goals. Teachers were prompted to discuss and consider the parts of their work they could change (i.e., craft) via increasing job resources or increasing challenging job demands in order to achieve their goals. After a four-week period, participants reflected on the successes they had from job crafting. Mean job crafting behaviors increased significantly for those in the intervention group ($M_{\text{pre-intervention}} = 3.12$, $M_{\text{post-intervention}} = 3.23$; $\square_p^2 = .04$), while no significant changes were found for the control group ($M_{\text{pre-intervention}} = 2.99$; $M_{\text{post-intervention}} = 3.04$; van Wingerden et al., 2017).

Similarly, Gordon et al. (2018) compared the effects of a general versus a specific job crafting intervention for health care employees in two separate studies. Gordon and colleagues, using the JD-R model, found that participants who received the general intervention (i.e., broader goals supporting effective teamwork and increasing quality of patient care) showed significantly greater frequencies of crafting behaviors related to seeking challenges ($M_{\text{pre-intervention}} = 2.47$,

$M_{\text{post-intervention}} = 2.75$; $\square_p^2 = .04$) and reducing demands ($M_{\text{pre-intervention}} = 2.03$, $M_{\text{post-intervention}} = 2.29$; $\square_p^2 = .04$), but not of seeking resources ($M_{\text{pre-intervention}} = 3.24$, $M_{\text{post-intervention}} = 3.28$; $\square_p^2 = .01$) than their baseline scores. In their second study, participants (nurses) who received the specific intervention (i.e., specific goals about screening checklists) reported significantly greater frequencies of crafting behaviors related to seeking resources ($M_{\text{pre-intervention}} = 3.46$, $M_{\text{post-intervention}} = 4.05$; $\square_p^2 = .35$) and reducing demands ($M_{\text{pre-intervention}} = 2.03$, $M_{\text{post-intervention}} = 2.41$; $\square_p^2 = .08$), but not of seeking challenges ($M_{\text{pre-intervention}} = 3.23$, $M_{\text{post-intervention}} = 3.23$; $\square_p^2 = .02$).

Gordon et al.'s findings are inconsistent with those of van Wingerden et al. (2017), who observed an increase in crafting behaviors related to both seeking challenges and seeking resources. Bakker and Demerouti (2007) proposed that individuals are more highly motivated to retain their job resources under high job demands. Given that nurses often have many job demands, they may prefer to maintain or increase job resources versus take on additional challenging demands. Further, Gordon et al. (2018) indicated that seeking challenges was excluded as a weekly goal from nurses in the specific intervention group because the target goal to increase the number of completed screening checklists was considered a challenging enough task, itself. Nonetheless, research indicates that increases in at least some job crafting behaviors following a job crafting intervention have been observed (Sakuraya, Shimazu, Imamura, Namba, & Kawakami, 2016; van Wingerden, Bakker, & Derks, 2016). Therefore, the current project sought to evaluate the effects of a specific job crafting intervention on the frequency of social job resource crafting behaviors in a hospital setting to examine the following hypothesis:

Hypothesis 1. Participants' levels of social job resource crafting and the frequency of feedback-related behaviors (i.e., giving, seeking, and receiving and accepting feedback) would increase after the job crafting intervention (T2) in comparison to pre-intervention (T1) levels.

Tims et al. (2012) demonstrated that, among other findings, increasing social job resources was significantly related to work engagement. The *JCS* (Tims et al., 2012) lists five items that describe crafting behaviors related to increasing social job resources: "I ask my supervisor to coach me"; "I ask whether my supervisor is satisfied with my work"; "I look to my supervisor for inspiration"; "I ask others for feedback on my job performance"; and "I ask colleagues for advice." Tims et al. (2012) examined the criterion validity of the *JCS* with a sample of employees from several organizations (primarily in healthcare, government, and retail) in the Netherlands. Each participant was paired with a coworker with whom they closely worked and was asked to complete a questionnaire for themselves and their colleague. The questionnaire consisted of measures for job crafting, work engagement, employability, and job performance. Both increasing job resources and increasing challenging job demands were significantly related to work engagement (r = .31, r = .41), employability (r = .35, r = .40), and job performance (r = .23, r = .37); decreasing hindering job demands was not significantly related to any of these (Tims et al., 2012). Findings were consistent for self- and peer-rated forms.

Other researchers have also found a positive relationship between job crafting and work engagement (Sakuraya et al., 2017; van Wingerden et al., 2016). Sakuraya et al. (2017) surveyed employees of a large manufacturing company in Japan to examine job crafting, psychological distress, and work engagement. Findings revealed that high levels of structural job resources (r = .50), social job resources (r = .30), and challenging job demands (r = .54) were positively related

to work engagement. Sakuraya et al. found that decreasing hindering job demands was not related to increased levels of work engagement (r = .00), a phenomenon that has also been observed in other studies (Rudolph, Katz, Lavigne, & Zacher, 2017; Tims et al., 2012). Rudolph et al. (2017) note in their meta-analysis that reducing hindering job demands had a small factor loading, suggesting that the factor is unstable and may be examining constructs other than that for which it was designed. As a result, strategies for reducing hindering job demands were not emphasized in the job crafting intervention used in the present study; the focus in the present study was to increase social job resources.

Van Wingerden et al. (2016) examined the effects of a job crafting intervention focused on increasing personal resources, job resources, and challenging job demands among a sample of 64 female and three male healthcare professionals who worked with patients with hearing impairments in two different locations. Participants were assigned to an intervention group or a control group based on their location. The intervention group received training on how to view the future as a source of opportunities, how to give and receive feedback, how to refuse requests, and how to create a job crafting plan based on their strengths, motivation, and possible risk factors at work (van Wingerden et al., 2016). A questionnaire assessing personal resources (i.e., self-efficacy, hope, optimism, and resilience), job crafting, work engagement, and in-role performance was administered before and after the intervention such that higher scores indicated higher levels of each construct. The group that received the job crafting intervention showed higher mean levels of personal resources three weeks after the intervention (M = 3.84 vs. M = 3.58), higher mean levels of job crafting behavior (M = 3.05 vs. M = 2.88), higher mean levels

work engagement (M = 5.30 vs. M = 4.83), and higher mean levels of in-role performance (M = 4.30 vs. M = 4.07) in comparison to the control group.

Relatedly, a recent meta-analysis of job crafting studies revealed that, among 17 studies, the social job resources dimension of job crafting had a small to medium relationship with job satisfaction (r_c = .25) and work engagement (r_c = .35; Rudolph et al., 2017). Rudolph et al. (2017) note that a future direction for job crafting studies is to examine mediator relationships. While their meta-analysis was focused on the relationship between job crafting and other variables such as Big Five factors of personality, job strain (r_c = -.13), and turnover intentions (r_c = -.02), they note that only examining bivariate relationships is a limitation. The present study will evaluate these bivariate relationships in a more controlled manner, as well as examine the link between job crafting and burnout. Job strain acts to drain employee resources (Du, Zhang, & Tekleab, 2018), and as the JD-R model indicates, a loss in resources can lead to energy depletion that can then lead to burnout.

Most recently, Gordon et al. (2018) assessed the role of job crafting behaviors as a mediator between a job crafting intervention and work engagement, exhaustion, and subjective adaptive, task, and contextual performance. As described earlier in this paper, Gordon and colleagues conducted two related studies in health care settings; a general intervention was used in the first, and a specific, goal-focused intervention was used in the second. In study one, seeking challenges partially mediated the relationship between the intervention and work engagement as well as between work engagement and adaptive performance. In study two, support was found for full mediation between the intervention and work engagement through seeking resources. These findings suggest that a job crafting intervention that targets specific

crafting behaviors may be effective in increasing work engagement for those who apply the skills learned in the intervention to alter their behavior following the intervention. Based on the above findings in the literature, this research sought to evaluate the following hypotheses:

Hypothesis 2. Participants' levels of job satisfaction would increase after the job crafting intervention (T2) in comparison to pre-intervention (T1) levels.

Hypothesis 3. Participants' levels of work engagement would increase after the job crafting intervention (T2) in comparison to pre-intervention (T1) levels.

Performance Feedback

Individuals may use feedback as a resource to overcome their job demands. Performance feedback gives individuals information about their past performance (Balcazar et al., 1985). Feedback serves both directional and motivational functions. The directional function informs individuals of the behaviors that they should be performing, while the motivational function serves to provide information about outcomes as they relate to positive (e.g., goal achievement, rewards) and negative (e.g., penalties, punishers) performance-contingent consequences (Ilgen et al., 1979). Feedback is a heavily researched performance management technique within the fields of industrial/organizational psychology, organizational behavior management, and applied behavior analysis. Culig, Dickinson, McGee, & Austin (2005) reported that performance feedback was the most common (52%) independent variable used in a review of studies in the *Journal of Organizational Behavior Management*; feedback was a relatively common (12%) variable in studies reviewed in the *Journal of Applied Behavior Analysis*.

Prue and Fairbank (1981), like others (e.g., Alvero et al., 2001; Balcazar et al., 1985) describe several characteristics of performance feedback such as: the recipients of the feedback

(private or public, individual or group), the mechanisms of the feedback (verbal, written, mechanical, or self-recorded), the content of the feedback (what the performance is being compared to), and the temporal characteristics of feedback (how often should it be provided and contiguity between performance and feedback). Furthermore, both the source (supervisor, co-workers, etc.) and characteristics of the message (timing, positive or negative content, and frequency) can influence perceptions of feedback. Alvero et al. (2001) state that feedback delivered by supervisors/managers and researchers produced the most consistent effects of feedback (86%), as well as that the combination antecedent interventions (such as staff training) and feedback produced consistent, positive effects on performance.

All feedback interactions include both a sender and receiver of feedback; therefore, feedback interventions should focus on behaviors that are relevant to both parties. For feedback to have an effect, not only does it need to be given or sought, but feedback also needs to be received and accepted by the individual receiving it (Crommelinck & Anseel, 2013). An intervention that only focuses on how to give feedback would be insufficient. As such, participants in the current research included employees of all levels, and guidelines for effectively giving, seeking, and receiving and accepting feedback were provided. An overview of the components of each type of feedback-related behavior are listed in Table 1.

Table 1

Components of Feedback-Related Behaviors

Giving Feedback	Seeking Feedback	Receiving and Accepting Feedback
Frequency	Frequency	Perceptions
Timing	Timing	Acceptance
Specificity	Method	Desire to Respond
Type	Topic	How to Respond
	Target	

Note. Sources for information in Table 1: Giving feedback (Lizzio, Wilson, & MacKay, 2008; Quaglieri, 1983), seeking feedback (Ashford, Blatt, & Vandewalle, 2003; receiving and accepting feedback (Ilgen, Fisher, & Taylor, 1979).

Giving feedback. Johnson (2013) described objective and evaluative components of feedback. Objective feedback serves a directional function and informs the employee of how their performance relates to their goals (e.g., "You completed 15 correct responses"). Evaluative feedback can act as a reinforcer or punisher (serving a motivational function) for past performance (e.g., "You performed much better than the average person on the task"). To evaluate the effects of these components of feedback, Johnson (2013) divided participants into four groups; one group received objective feedback, one received evaluative feedback, one received both types of feedback, and one received no feedback. Participants were asked to complete a simulated bank check processor task over four sessions. Evaluative feedback was labeled as excellent, good, average, or poor, and objective feedback provided information on the number of correctly processed checks.

Participants who received both evaluative and objective feedback were read their objective feedback and provided with evaluative feedback before the start of each experimental

session (e.g., “You completed __ checks correctly. That is a really impressive number of checks!”). Johnson (2013) found that performance increased in all feedback conditions; however, individuals who received the combined evaluative and objective feedback showed the most improvement (175 more checks completed correctly). This suggests that supervisors may benefit from providing both types of feedback to employees to gain the largest improvements in performance.

Quaglieri (1983) suggested that the timing and frequency of feedback are important to ensure the behavior (performance) and the outcomes (results and feedback) become paired. Timing of the feedback refers to how close to the behavior the feedback is given and frequency of the feedback refers to how often the feedback is provided. In other words, the timing of the feedback needs to occur close enough to the behavior so that the individual is able to associate the two. Zagumny (1993) examined the effects of the frequency of feedback from students on faculty member performance at a medical college and found that faculty who received more frequent feedback had higher subsequent performance ratings than those who received feedback less often. Reviews of the performance feedback literature indicated that daily feedback produced more consistent effects than weekly (Alvero et al., 2003) and monthly (Balcazar et al., 1985) feedback. Taken together, these findings support the importance of both timely and frequent feedback to improve performance.

Providing specific feedback can help people better identify the behaviors they are doing correctly and incorrectly. Additionally, providing feedback that utilizes both positive and constructive components has been associated with increased perceived effectiveness of the feedback (M = 2.26 points higher than negative feedback alone on a seven-point scale; Lizzio,

Wilson, & MacKay, 2008) and a large improvement in performance on a data entry task ($\square_p^2$ = .66 between receiving positive and corrective feedback as compared to receiving no feedback; Slowiak & Lakowske, 2017). Regardless of the positive or constructive nature of feedback, Anderson (1968) indicated that feedback should describe the individual's behavior, rather than relate to a judgment (e.g., unmotivated, lazy) about the receiver's character. Furthermore, Ilgen and Davis (2000) state that negative or constructive feedback can lead to positive results if it is paired with a learning goal that related to increased knowledge or skills. Thus, feedback should provide the individual with information on what to do to correct behavior and how to improve performance.

Jeffries and Hornsey (2012) found that many people struggle to deliver negative or constructive feedback face-to-face and suggest that the failure to deliver such feedback serves as a form of self-protection. The researchers had students complete their own measures of self-esteem and then were given a survey completed by another student who they were told had high, medium, or low self-esteem. After this, participants read an essay from the same student whose self-esteem survey they just viewed. The participants were told that their feedback on the essay would be undelivered, delivered anonymously, or delivered face-to-face. Participants low in self-liking rated the essay more harshly when their feedback was either undelivered or delivered anonymously as compared to when they were told it would be delivered face-to-face. This finding suggests that individuals who are low in self-liking may provide less negative feedback face-to-face in an effort to avoid being perceived negatively by others. While self-liking was not measured in the current study, the influence of private events (e.g., negative self-talk, self-doubts, uncomfortable thoughts and emotions) on one's behavior was addressed in the

intervention workshop when discussing reasons why people might avoid or struggle to give negative feedback.

Satisfaction with feedback has been related to job satisfaction and turnover intentions; specifically, employees who are more satisfied with the feedback they receive have higher levels of job satisfaction and lower levels of turnover intentions (Jawahar, 2006). The intervention in the current research provided information and guidelines that emphasized giving feedback at appropriate times and providing both positive and constructive feedback. In addition, Azzam and Whyte (2018) state that developing specific performance goals along with providing specific feedback increases the likelihood of the receiver utilizing the feedback; therefore, the intervention also provided instruction on giving feedback that is related to organization-specific goals.

Seeking feedback. Feedback-seeking behavior occurs when an individual self-solicits or self-generates information in order to obtain feedback on his or her performance (Slowiak, Dickenson, & Huitema, 2011). Feedback seeking can help individuals develop their skills, exhibit good performance, and/or obtain a promotion (Crommelinck & Anseel, 2013). Ashford, Blatt, and Vandewalle (2003) propose five dimensions of feedback seeking: the frequency of feedback seeking, the method for seeking feedback, the timing of feedback seeking, the target of feedback seeking, and the topic for which feedback is being sought. Ashford et al. (2003) further identified three feedback-seeking motives that serve as either prompts (antecedents) or consequences of feedback seeking behavior: instrumental, ego-based, and image-based. An instrumental feedback-seeking motive serves an informational purpose, such that individuals seek feedback to inquire about their level of performance in order to guide future behavior. The

ego-based motive describes situations when individuals avoid seeking feedback when they perceive that doing so may harm their self-image (i.e., pride, ego, and vanity). An image-based motive describes situations when individuals avoid seeking feedback when they perceive that doing so will make them appear uncertain or incompetent to others.

Three primary costs (i.e., negative consequences) have been associated with feedback seeking behavior: effort costs, face-loss costs, and inference costs (Ashford & Cummings, 1983). Effort costs consider the amount of effort required to seek feedback. Individuals may not seek feedback simply because the effort required to do so is too large. The face-loss costs refer to the risks associated with getting feedback. Rather than seeking feedback, individuals may not want to get feedback because they may be doing the task incorrectly. To them, the risk involved is greater than the potential benefit. Inference costs refer to how individuals interpret messages from other people. For example, individuals may interpret the feedback message incorrectly that could otherwise help them achieve a goal. The seeking-feedback portion of the intervention emphasized the instrumental value of feedback seeking and also addressed how to reduce effort costs, face loss costs, and inference costs. Reducing these costs may increase the amount of feedback occurring in the work environment.

Receiving and accepting feedback. Individuals also need to be willing to receive feedback that is both solicited or unsolicited. Ilgen et al. (1979) described four elements the receiver considers when processing feedback: their perception of feedback, acceptance of feedback, desire to respond to feedback, and how they plan to respond to the feedback. Ilgen et al. (1979) propose that accepting feedback can be influenced by the credibility (expertise and

trust) of the source, as well as the message (consistently providing positive or negative feedback) that is used.

Expertise is influenced by how familiar the source of the feedback is with the job being performed. Feedback given by trusted supervisors is accepted more frequently than those who are not trustworthy (Ilgen et al., 1979). This provides further support for including coworkers in this training session, as those with higher levels of expertise (those with the same jobs) are more likely to be coworkers. Supervisors were also included as those who, if trusted, can give feedback that will be more likely to be accepted by the recipient. Once individuals have considered accepting feedback, they have the opportunity to respond to the feedback. If individuals do not believe they have any control over their poor performance, they may be less likely to try to correct their performance. Ilgen and Davis (2000) proposed that those individuals who experience negative feedback would be most likely to increase future performance if they attribute their current performance to effort. Ilgen et al. (1979) noted that positive feedback is overwhelmingly more accepted by individuals than is negative feedback.

When receiving feedback, individuals should not become defensive (Anderson, 1968; Manzoni, 2016). Rather than trying to explain why they acted the way they did right away, the recipient should instead try to understand what is being said and what is wrong with the behavior (Heen & Goldstein, 2017). Anderson (1968) also suggests having the recipient summarize the feedback so that it is clear they understand what is being said.

Negative feedback may also help to increase performance. Raftery and Bizer (2009) found that individuals with a reappraisal mindset (reinterpreting a situation to be less emotional) scored better on a follow-up test when given negative feedback ($M = 9.01$ correct responses out

of 12) than when they received neutral feedback ($M = 7.35$). No difference in performance was observed for those who suppress emotion, regardless of whether they received negative or neutral feedback. The authors suggest this could be because those who reappraise may frame the negative feedback in a positive way. Treseder (2016) proposes five steps for recipients to utilize negative feedback: embrace emotions, do not demonize, prioritize, piggyback on a skill, and commit. Following these steps may help individuals accept the feedback they have been given.

Performance Feedback as a Social Job Resource

Ashford and Cummings (1983) argue that feedback is a valuable resource for employees. Consistent with this view, performance feedback has been labeled as one type of social job resource in the JD-R model (Bakker & Demerouti, 2007). Furthermore, Ashford (1986) found that individuals who view their performance goals as important will seek feedback more often to monitor their progress, likely because feedback becomes a more valuable resource when linked to a performance-related goal (Slowiak & Nuetzman, 2014). Given the value of performance feedback, it seems reasonable for organizations to promote and support feedback-related behaviors in order to cultivate a positive feedback environment.

Steelman, Levy, and Snell (2004) define the feedback environment as "the contextual aspects of day-to-day supervisor-subordinate and coworker-coworker feedback processes rather than the formal performance appraisal feedback session" (p. 166). In other words, the variables that surround the daily interactions of employees with their supervisor or other colleagues are representative of the feedback environment, rather than feedback received during an annual performance review. Steelman and Wolfeld (2018) identify a favorable feedback environment as

one where supervisors provide high-quality feedback politely, give feedback to foster self-development, and promote feedback seeking.

A positive supervisor feedback environment has been linked to higher levels of job satisfaction (Anseel & Lievens, 2007). Rosen, Levy, and Hall (2006) found that employees who are able to seek feedback at work lowered their perceptions of organizational politics such that work outcomes (e.g. as job satisfaction) increased. Furthermore, they found that the supervisor feedback environment had stronger positive effects on morale than did the coworker environment. This demonstrates that while both the employee-supervisor and employee-employee relationships can help to foster a positive feedback environment, the supervisor-employee relationship has a greater influence than the employee-employee relationship. While improving both relationships can be beneficial, having a greater emphasis on the supervisor-employee relationship may be more beneficial for this study. As such, supervisors and department managers participated in the intervention.

Peng and Chiu (2010) found a negative relationship between supervisor feedback environment and burnout (r = -.47), as well as a positive relationship between role stressors and burnout (r = .48). Other studies have found a positive relationship between feedback environment and feedback seeking (Whitaker, Dahling, & Levy, 2007). While the authors note more research needs to be done to establish causality, if employees perceive the feedback environment as positive, then they may be more likely to engage in feedback-related behaviors. Considering these findings and those that suggest that job crafting is negatively related to exhaustion, a form of burnout (Gordon et al., 2018), a final hypothesis was evaluated:

Hypothesis 4. Participants' levels of burnout would decrease after the job crafting intervention (T2) in comparison to pre-intervention (T1) levels.

Current Study

The purpose of this study was to assess the effectiveness of a job-crafting intervention that focused on increasing social job resources through engaging in feedback-related behaviors. Specifically, the researchers sought to examine how a training workshop focused specifically on increasing social job resources could impact levels of feedback-related behaviors, social job resources (measured using five social job resources items from the Job Crafting Scale (*JCS);* Tims et al., 2012), job satisfaction (measured using the 10-item Generic Job Satisfaction Scale; Macdonald & MacIntyre, 1997), work engagement (measured using the Three-Item Utrecht Work Engagement Scale (*UWES-3)*; Schaufeli, Shimazu, Hakanen, Salanova, & De Witte, 2017), and burnout (the 16-item Oldenburg Burnout Inventory (*OLBI)*; Demerouti, Mostert, & Bakker, 2010). Psychological flexibility was also included as an exploratory variable (measured using the seven-item Work-Related Acceptance and Action Questionnaire (*WAAQ)*; Bond, Lloyd, & Guenole, 2013).

Method

Participants

Twenty-seven healthcare employees from three departments within a combined hospital and medical clinic system in the upper Midwest were invited to participate in this project. The site's President/CEO expressed interest in this project as a way to support employee development and, indirectly, patient care. Discussions were held with department managers to identify participating departments. The departments that participated in this project included Nutrition Services, Radiology, and Rehabilitation. At the time of the project, Nutrition Services

had six employees, Radiology had eight employees, and Rehabilitation had 13 employees. Site approval was obtained, and individual employees (including managers) from the three departments were invited to participate in the intervention workshops via email.

Setting

The study took place on the campus of the combined hospital and medical clinic system. The hospital, which has 25 beds and serves roughly 11,000 residents, currently focuses on primary care, emergency and hospital care, and outpatient services. All intervention workshop sessions (see *Intervention*) were facilitated in a conference room or cafeteria on the site's campus.

Experimental Design

This project used a convenience sampling method and combined a quasi-experimental pre-test and post-test procedure with a multiple-baseline design. A multiple-baseline design was selected, as it is appropriate for evaluating the effects of an intervention implemented at different times across groups (Kazdin, 1982). A multiple-baseline design consists of collecting baseline data (before the intervention) for each group of participants. Once this is done, the intervention can be applied in a staggered fashion so that each group receives the intervention at different times. Comparing scores across groups demonstrates the effect of the intervention repeatedly by showing that behavior only changes when the intervention is applied (Kazdin, 1982). If group one received the intervention and groups two and three had not yet received it, we should only see changes in behavior for the first group. The multiple-baseline design allowed us to examine this phenomenon.

It was expected that feedback-related interactions would be higher between employees within the same department as compared to between departments. This helped to lower concerns regarding cross-contamination of the intervention and the workshop content.

Intervention (Tailored Training Workshop)

The intervention was a self-developed training workshop created by the researcher and his advisor that provided participants with information about the JD-R model and job crafting, as well as empirically-based guidelines for how to foster a positive feedback environment through effectively giving, seeking, and receiving and accepting feedback. The workshop was co-facilitated by the researcher and his advisor as the researcher had successfully completed course work in instructional design in which he demonstrated the ability to design and administer effective training and development programs. The executive director of the hospital confirmed interest in targeting effective performance feedback behaviors, and follow-up discussions were held with department managers to identify department-specific goals. Except for activities to emphasize the link between feedback-related behaviors and department-specific performance goals, workshop content was consistent across all departments.

Individuals who attended the training workshops had the opportunity to discuss how they would engage in all three types of feedback-related behaviors (giving, seeking, and receiving and accepting), discuss and consider the parts of their work they could change (i.e., craft) in order to increase social job resources that impact department-specific goals, and to participate in situated experiential learning narratives. Situated experiential learning narratives are similar to role-playing exercises and this may better help participants understand how the behaviors they engage in at work can be viewed as a form of job crafting (Gordon et al., 2018). During the workshop,

individuals were presented with three scenarios (narratives) that were relevant to their department, and a discussion occurred that considered appropriate ways to respond and act in that situation. Individuals were asked to draw on their own experiences in the workplace that related to the presented scenario. For example, individuals were asked to consider the best time(s) to seek feedback related to the situation described in the scenario based on their actual experiences on the job. This is modeled on the thinking-in-action approach described in Benner, Hooper Kyriakidis, and Stannard (2011). Before the end of the workshop session, participants were asked to develop their own personal feedback crafting plan (FCP) to describe the specific feedback-related behaviors that they planned to commit to practicing over the subsequent weeks. The workshop facilitators provided an example of a goal and then gave participants time to develop their plan. Participants were given the opportunity to share their plan with the group.

Procedure

All participants received a pre-study (T1) questionnaire approximately two weeks before the first scheduled intervention workshop to collect demographic information and assess current levels of job crafting (Appendix A), job satisfaction (Appendix B), work engagement (Appendix C), burnout (Appendix D), and psychological flexibility (Appendix E). Participants also received a daily email with a link to a short questionnaire to obtain information about their feedback-related behaviors for that day (Appendix F). These daily emails were sent only to the department members whose workshop was approaching every day for one week before their department's intervention workshop and every day for one week after their intervention workshop. Probing emails were also sent to all participants once a week (see Appendix G for the schedule of survey administration).

Intervention workshops were implemented in Rehabilitation Services, Radiology, and Nutrition Services, according to a staggered schedule. Radiology attended the intervention workshop approximately two weeks after Rehabilitation Services, and Nutrition Services attended the intervention workshop approximately two weeks after Radiology. Workshop sessions took place at the hospital and were two hours in length. All participants attended only one intervention. Participants in each department received a post-study (T2) questionnaire two weeks following Nutrition Service's workshop session (i.e., two-to-six weeks after their respective department's workshop). In all, data collection occurred over a period of five months.

Measures

Basic demographic information was collected from the participants, such as gender, role (e.g., administration, direct care position), department, and tenure at the organization prior to the start of the intervention (T1). Collecting these allowed for later comparisons (T2) between groups. All of the following measures were collected at both T1 and T2.

Job crafting for social job resources. To evaluate whether or not employees increased the amount of feedback that they were engaging in, the five social job resources items from the Job Crafting Scale (*JCS;* Tims et al., 2012) were used. This also served as a manipulation check to determine if those who participated in the workshop increased their levels of job crafting behaviors. This subscale of the measure has been found to have adequate reliability in past studies (α = .77; Tims et al., 2012) and the present study (α = .77). Responses to items were made on a five-point rating scale (1 = *never*; 5 = *often*). Possible scores ranged from 5 to 25, with higher scores indicating greater levels of job crafting behaviors.

Job satisfaction. Job satisfaction was measured before and after the intervention using the 10-item Generic Job Satisfaction Scale (Macdonald & MacIntyre, 1997). Example items include "I get along with supervisors" and "I feel close to the people I work with." This scale has been found to have adequate internal reliability across various occupation types (α = .77; Macdonald & MacIntyre, 1997) and in the present study (α = .82). Responses to items were made on a five-point rating scale (1 = *strongly disagree*; 5 = *strongly agree*). Possible scores ranged from 10 to 50, with higher overall scores indicating higher levels of satisfaction.

Work engagement. Work engagement was measured with the Three-Item Utrecht Work Engagement Scale (*UWES-3*; Schaufeli, Shimazu, Hakanen, Salanova, & De Witte, 2017). Work engagement has been proposed to consist of three components: vigor, dedication, and absorption (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). The three items of the scale are, "At my work, I feel bursting with energy"; "I am enthusiastic about my job"; and "I am immersed in my work" measuring vigor, dedication, and absorption respectively. Item responses were made on a six-point rating scale (0 = *never*, 5 = *very often*). Possible scores ranged from zero to 15, with higher scores indicating higher levels of work engagement. This scale has shown similar levels of internal consistency to the UWES-9 item scale (α = .77; Schaufeli, Bakker, & Salanova, 2006) and levels of internal consistency were good in the present study (α = .83).

Burnout. Burnout was measured using the 16-item Oldenburg Burnout Inventory (*OLBI*; Demerouti, Mostert, & Bakker, 2010). An example item from this scale includes, "Lately, I tend to think less at work and do my job almost mechanically." Responses to items were made on a four-point rating scale (1 = *strongly disagree*; 4 = *strongly agree*). Possible scores ranged from 16 to 64, with higher scores indicating higher levels of burnout. The exhaustion measures of the

OLBI (α = .73; Demerouti, Bakker, Vardakou, & Kantas, 2003) and the widely used Maslach Burnout Inventory - General Survey (MBI-GS; Maslach, Jackson, & Leiter, 1996) have been shown to be related (r = .62; Demerouti et al., 2003) while the disengagement measure of the OLBI (α = .83) has been shown to be related to the cynicism measure of the MBI (r = .52; Demerouti et al., 2003). Levels of internal reliability were lower for each of these variables in the present study, but were still acceptable (α = .66, exhaustion; α = .66, disengagement).

Psychological flexibility. Psychological flexibility describes how well individuals are able to accept all of their emotions, even if they are negative, and act in such a way to move toward their goals and values (Hayes, Luona, Bond, Masuda, & Lillis, 2006). Within the context of providing feedback, an individual may demonstrate higher levels of psychologically flexibility if they provide constructive feedback to another employee even though it makes them feel uncomfortable in doing so because they value communication and teamwork. Psychological flexibility was assessed as an exploratory variable using the seven-item Work-Related Acceptance and Action Questionnaire (*WAAQ*; Bond, Lloyd, & Guenole, 2013). An example item included, "I can work effectively, even when I doubt myself." Responses were made on a seven-point rating scale (1 = *never true*, 7 = *always true*). Possible scores ranged from seven to 49, with higher scores indicating greater levels of psychological flexibility. The internal reliability of the scale has been shown to be acceptable (α = .84; Bond et al., 2013) and was in the present study (α = .85).

Daily feedback-related behaviors. An online survey was created containing six items to assess individuals' frequency of feedback-related behaviors on a particular day. An example item was, "How many times did you ask for feedback today from a supervisor when a task you were

working on was not clear?" A link to the survey was sent to individuals near the end of their workday for them to fill out, and a reminder email was sent to participants who did not respond to the initial survey.

Department-specific outcomes. Data related to department-specific goals was requested to evaluate the relationship between the frequency of daily feedback behaviors and desired performance outcomes. The nutrition services department had a goal of having accurate patient meal tray assemblies. The goals for the radiology department included ensuring staff are courteous during exams, ensuring a short wait time for each patient's procedure, and ensuring patients are comfortable during their visit. The rehabilitation department's goals were to maintain a high level of customer service, maintain highly skilled therapists, and increase patients' overall likelihood to recommend their facilities. Unfortunately, the organization was not able to provide objective data for this analysis.

Analyses

Descriptive and visual analyses. Graphs were constructed to visually represent the crafting behaviors before and after the intervention for each department compared to the other departments. Assessing an initial baseline in the days before the intervention allowed us to examine the current levels of feedback-related behavior in comparison to levels of feedback-related behavior after the intervention (Kazdin, 1982). Graphing behaviors before and after the intervention for each department allowed us to examine any changes in level, trend, and variability in behavior as well as compare those changes to other departments. Graphs were constructed for the overall department and for four individuals (two in Rehabilitation Services,

one in Radiology, and one in Nutrition Services), each of whom completed at least 50% of the feedback-related surveys.

Statistical analyses. This study used paired-samples *t*-tests to analyze differences between levels of job crafting, job satisfaction, work engagement, burnout, and psychological flexibility from pre-study to post-study. Additionally, independent-samples *t*-tests were used to assess differences between those who completed all study measures to those who only completed the pre-study measures. Paired-samples *t*-tests were used in place of *ANOVA*s because of the small sample size of the study. This does not allow for as much statistical control in assessing potential differences between departments as all departments are grouped together. This is a limitation of the study. Additionally, it was unlikely that significant effects could be detected from the t-tests. Rather than interpreting *p* values, Cohen's *d* was calculated to evaluate effect size. Any *d* value above .30 was established a priori as a meaningful effect size.

Social validity (acceptability) of intervention. Social validity assesses participants' level of satisfaction with the intervention (Rodriguez, Sundberg, & Biagi, 2017). Social validity for this research was assessed both before (goal alignment and intervention design) and after the project (satisfaction with the intervention workshop, data collection procedures, and project outcomes). Communication with management occurred before the study was conducted to assess what management was interested in and their current goals. Following the intervention, participants were given a post-study questionnaire to assess their level of satisfaction with the workshop and daily surveys. Examples of these items include "The training I received helped me to identify which behaviors I am changing in my work environment" and "Overall, I am satisfied with the training session." A debriefing session was held with management at the end of the

study to discuss the results of the project and to obtain feedback related to their satisfaction with the intervention and associated outcomes.

Results

Of the 27 employees who participated in the workshop, 22 completed the pre-study questionnaire: nine from Rehabilitation Services, eight from Radiology, and five from Nutrition Services. The sample was predominately female (78%), and more than half (59%) served in a direct care position. Most participants (59%) reported working at the hospital for at least five years and reported being in their profession for at least five years (86%). Seven participants only completed the pre-study measures, leaving a total of 15 who completed both the pre-study and post-study measures (Rehabilitation Services, n = 9; Radiology, n = 4, and Nutrition Services, n = 2).

Missing data were observed for three items across three different participants: item number five from the pre-study burnout scale, item number six from the pre-study burnout scale, and item number seven from the post-study job satisfaction scale. Scale score averages were computed for each participant and that value replaced the missing value. Z-scores were assessed and any z-score value greater than 1.96 was changed so that the maximum z-score possible in the dataset was 1.96, thereby removing outliers from the analyses. Tests of normality and homogeneity of variances showed no parametric violations. Bivariate correlations can be found in Table 2.

Table 2

Item Correlations

Measure	1	2	3	4
1. Job Crafting	(.77)	.81	.70	-.48
2. Job Satisfaction	.84	(.82)	.62	-.35
3. Work Engagement	.66	.61	(.83)	-.57
4. Burnout	-.61	-.58	-.65	(.72)

Notes. Items above diagonal represent pre-study correlations. Items below diagonal represent post-study correlations. Correlations in parentheses represent Cronbach's Alpha for each scale.

The small sample size precluded sufficient power to assess differences in changes in pre-study and post-study measures between departments. Instead, paired-samples t-tests were conducted to assess for differences in scores from pre-study to post-study within each department. Table 3 shows differences in pre-study measures between those who only took the pre-study measures and those who took both the pre-study and post-study measures.

Table 3

T-Test Results and Effect Sizes for Group Differences in Pre-Test Scores (Average at Pre-Test)

	Pre-test only		Pre-test and Post-test			
Measure	***M***	***SD***	***M***	***SD***	***t***	***d***
Job Crafting	11.86	2.48	15.07	3.71	-2.07*	1.02
Job Satisfaction	38.71	5.59	40.40	4.95	-.72	.32
Work Engagement	15.43	3.96	14.20	2.60	.88	.37
Burnout	35.29	3.59	36.13	4.76	-.42	.20
Psychological Flexibility	44.00	2.83	39.27	4.01	-2.80*	1.36

Note. * indicates significance at the $p < .05$ level. For job crafting, $p = .05$. For psychological flexibility, $p = .01$.

Table 4 shows levels of study variables for each department before and after the workshop.

Table 4

Descriptive Statistics by Department for Study Measures

	Rehabilitation Services		Radiology		Nutrition Services	
Measure	**Before**	**After**	**Before**	**After**	**Before**	**After**
Job Crafting	14.89 (2.89)	15.67 (3.94)	13.00 (4.04)	13.75 (4.50)	14.20 (4.55)	16.50 (2.12)
Job Satisfaction	41.00 (3.24)	39.67 (5.81)	39.13 (6.03)	36.00 (6.68)	39.00 (6.82)	41.00 (7.07)
Work Engagement	14.00 (1.87)	14.33 (3.04)	13.75 (4.17)	12.75 (2.63)	17.00 (1.41)	15.00 (1.41)
Burnout	35.22 (5.12)	35.22 (6.04)	35.88 (4.67)	36.75 (1.26)	37.00 (2.55)	36.00 (1.41)
Psychological Flexibility	39.44 (3.91)	38.00 (3.35)	41.50 (3.02)	37.75 (2.22)	42.00 (6.44)	39.50 (.71)

Note. Standard deviations are in parentheses.

Table 5 shows means, standard deviations, and effect sizes for individuals who completed both the pre-study and post-study questionnaire.

Table 5

T-Test Results and Effect Sizes for Study Variables

	Pre-test		Post-test			
Measure	***M***	***SD***	***M***	***SD***	***t***	***d***
Job Crafting	15.07	3.71	15.27	3.81	.32	.08
Job Satisfaction	40.40	4.95	38.87	5.99	-1.69	.44
Work Engagement	14.20	2.60	14.00	2.75	-.45	.12
Burnout	36.13	4.76	35.73	4.67	-.56	.15
Psychological Flexibility	39.27	4.01	38.13	2.80	-.90	.33

Note. No t-statistics were significant at the $p < .05$ level.

Hypothesis one predicted that levels of social job resource crafting would be higher on the post-study measure than on the pre-study measure. A paired-samples *t*-test revealed no meaningful differences between the two measures, $t(14) = -.32$, $p = .76$, $d = .08$. Thus, hypothesis one was not supported.

Hypothesis two predicted that participant levels of job satisfaction would increase from the pre-study measure to the post-study measure. A paired-samples *t*-test revealed meaningful differences between the two groups, $t(14) = 1.67$, $p = .11$, $d = .44$. Contrary to hypothesis two, scores on the post-study measure ($M = 40.40$, $SD = 4.95$) were lower than scores on the pre-study measure ($M = 38.87$, $SD = 5.99$).

Hypothesis three predicted that levels of work engagement would be higher on the post-study measure than on the pre-study measure. Hypothesis three was not supported as a paired-samples *t*-test revealed no meaningful differences between the two measures, $t(14) = .45$, $p = .66$, $d = .12$.

Hypothesis four predicted that participant levels of burnout would be lower on the post-study measure than on the pre-study measure. A paired-samples *t*-test revealed no meaningful differences between the two times, $t(14) = .56$, $p = .59$, $d = .15$. Therefore, hypothesis four was not supported.

Post-study levels of psychological flexibility were meaningfully different from pre-study levels ($t(14) = .90$, $p = .39$, $d = .33$), such that psychology flexibility scores on the post-study measure ($M = 38.13$, $SD = 4.01$) decreased from the pre-study measure ($M = 39.27$, $SD = 2.80$).

Feedback-Related Behaviors

Hypothesis one also predicted that the frequency of feedback-related behaviors would be higher following the job crafting intervention workshop. Means and standard deviations of the frequency of feedback-related behaviors before and following the intervention workshop are provided in Table 6, and multiple-baseline graphs of feedback-related behaviors across departments are provided below in Figure 2. Group-level data were composed of at least two individuals' responses. Data were excluded if only one employee responded from a department on a given day because their behaviors may not have been representative of the entire department's behaviors. Analyses revealed lower levels of all types of feedback-related behaviors for Radiology and an increase in all feedback-related behaviors for Nutrition Services. Rehabilitation Services experienced an increase in giving feedback but decreases in giving and receiving feedback. Taken together, results provide inconclusive support for hypothesis one.

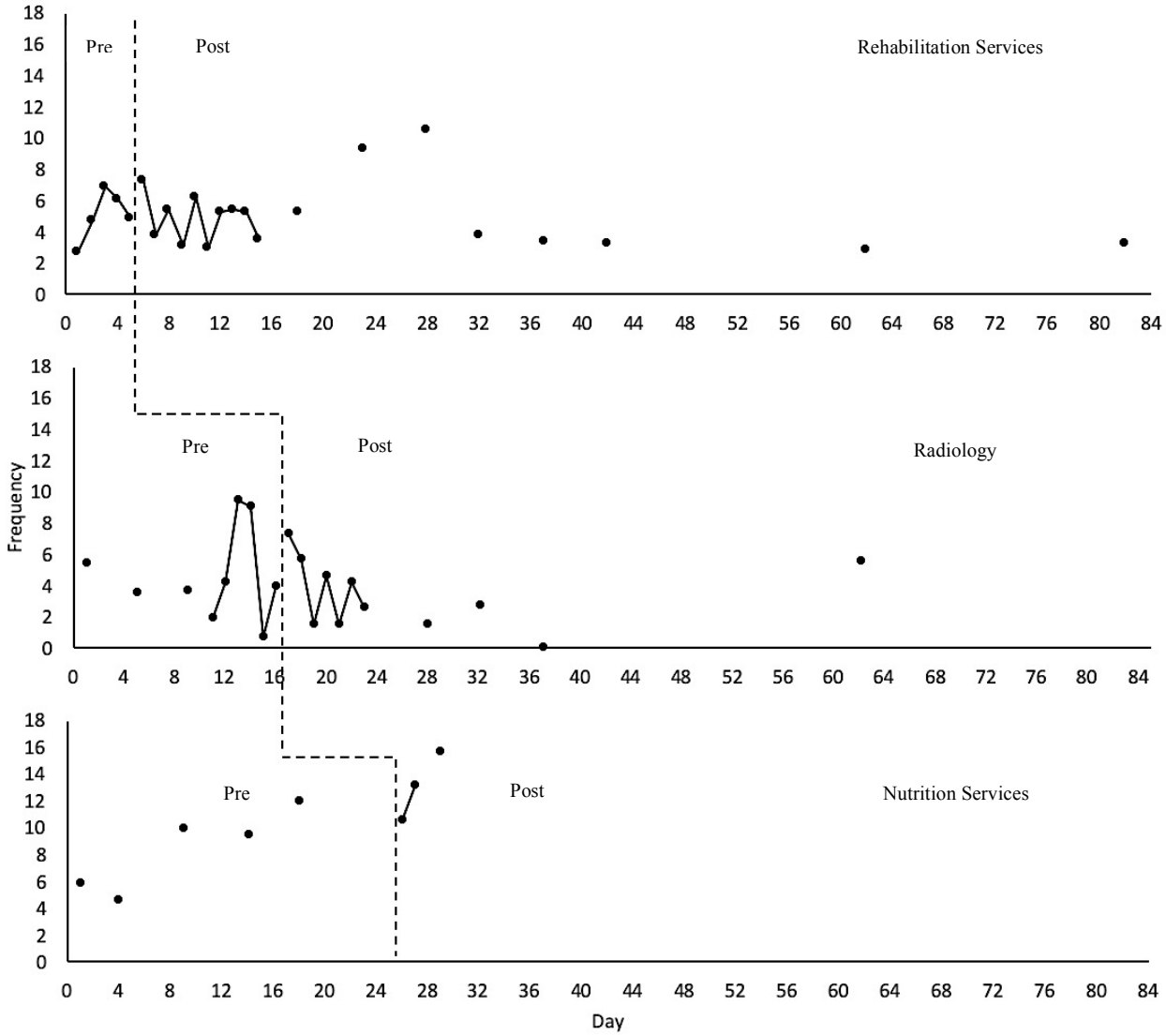
Table 6

Average Frequency of Feedback-Related Behavior (All Departments)

	Rehabilitation Services		Radiology		Nutrition Services	
	Before	After	Before	After	Before	After
Giving	2.25 (1.50)	2.89 (1.14)	2.00 (.97)	1.45 (1.29)	3.13 (1.11)	5.33 (1.26)
Receiving	1.68 (.57)	1.33 (1.06)	1.55 (1.05)	1.07 (.77)	2.78 (.85)	3.67 (.76)
Seeking	.87 (.34)	.73 (.46)	1.11 (1.02)	.80 (.41)	2.40 (.83)	4.17 (.73)
Overall	5.07 (1.56)	5.02 (2.20)	4.81 (3.10)	3.10 (2.34)	8.39 (3.06)	12.75 (2.10)

Note. Items in parentheses represent standard deviation.

Figure 2. Feedback-Related Behavior Frequency (Department-Wide)



Notes. This data represents the average amount of feedback-related behaviors for each department before and after the workshop. Rehabilitation Services received daily feedback questionnaire from Day Two through Day 16. Radiology received the daily feedback questionnaire from Day 11 through Day 23. Nutrition Services received the daily feedback questionnaire from Day 23 through Day 33. Any data points before or after these dates represent feedback questionnaire probes for each department. The probes were administered weekly with the exception of days 45, 64, and 83, which were sent approximately one month apart from each other.

Additionally, three exploratory paired-samples t-tests were run to assess differences between pre-study and post-study levels of giving, seeking, and receiving feedback. Please see Table 7 for means, standard deviations, *t*-values, and effect sizes for all feedback-related

behaviors. There were no effect sizes greater than $d = .30$ indicating there were no meaningful differences in feedback-related behaviors from before to after the workshop.

Table 7

T-Test Results and Effect Sizes for Feedback-Related Behaviors

	Pre-Workshop		Post-Workshop			
Measure	***M***	***SD***	***M***	***SD***	***t***	***d***
Giving Feedback	2.68	2.16	2.49	2.22	.54	.09
Seeking Feedback	1.83	1.91	1.48	1.77	1.39	.19
Receiving Feedback	1.29	1.58	1.26	1.86	.14	.02

Note. No *t*-statistics were significant at the $p < .05$ level.

Data were also analyzed independently for some individuals to obtain additional information that may not have been captured at the departmental level (i.e., on days with only one response). The individuals whose data were explored responded to more than 50% of the feedback-related questionnaires. This was done in an effort to maximize the amount of continuous data that could be assessed. The two individuals from Rehabilitation Services responded to 100% of the daily feedback-related surveys, the individual from Radiology responded to 82% of the surveys, and the individual from Nutrition Services responded to 90% of the surveys. Table 8 shows means and standard deviations of the frequency of feedback-related behaviors before and following the intervention workshop at the individual level for one individual in each department. Graphs of individual levels of feedback-related behaviors are provided in Figure 3. At the individual level, employees in each department reported decreases in

giving and receiving feedback and increases in seeking feedback. Overall, the representative individual in each department reported a decrease in feedback-related behaviors.

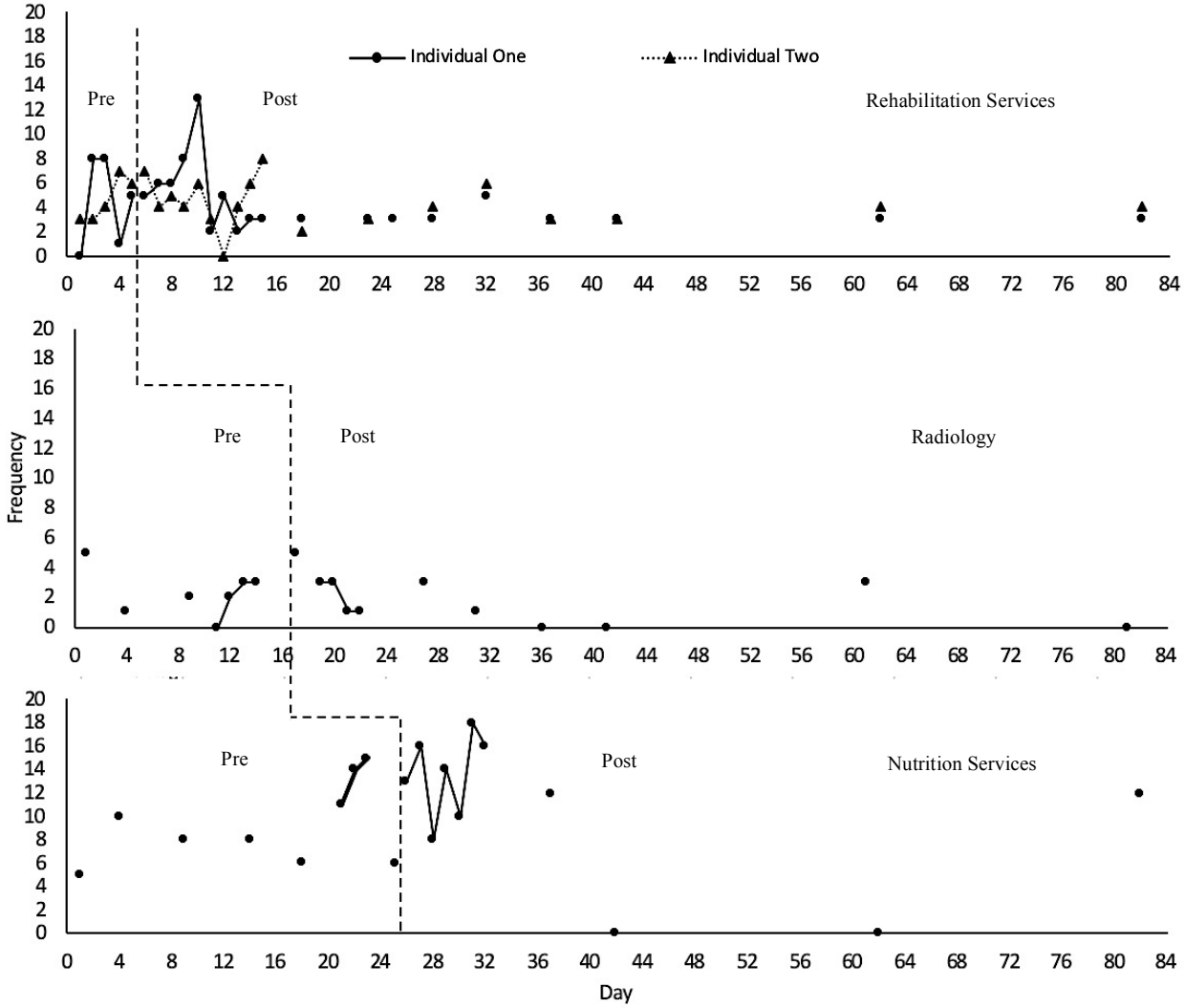
Table 8

Average Frequency of Feedback-Related Behaviors (Individual Level)

	Rehabilitation Services		Radiology		Nutrition Services	
	Before	After	Before	After	Before	After
Giving	2.20 (1.30)	1.69 (1.20)	1.29 (.95)	1.22 (1.09)	4.63 (1.69)	3.40 (2.17)
Receiving	5.00 (3.08)	4.56 (2.80)	2.29 (1.60)	1.89 (1.69)	8.89 (4.01)	3.10 (2.13)
Seeking	1.40 (1.14)	1.44 (.73)	0.00 (0.00)	.22 (.44)	2.78 (.83)	3.90 (2.85)
Overall	8.60 (4.98)	7.69 (4.48)	3.57 (2.51)	3.33 (2.78)	15.78 (6.65)	10.40 (6.57)

Note. Items in parentheses are standard deviations.

Figure 3. Feedback-Related Behavior Frequency (Individual Level)



Notes. This data represents the amount of feedback from one individual representing each of their departments. Each participant responded to at least 50% of the daily feedback-related surveys. Rehabilitation Services received daily feedback questionnaire from Day Two through Day 16. Radiology received the daily feedback questionnaire from Day 11 through Day 23. Nutrition Services received the daily feedback questionnaire from Day 23 through Day 33. Any data points before or after these dates represent feedback questionnaire probes for each department. The probes were administered weekly with the exception of days 45, 64, and 83, which were sent approximately one month apart from each other.

Social Validity of the Intervention Workshop

Social validity items were obtained from participants to get feedback about levels of satisfaction with various elements of the intervention workshop. Generally, participants had

positive reactions to the workshop. Please see Table 9 for items and their ratings. All items were on a five-point scale with higher values representing more agreement (favorable views).

Table 9

Mean Ratings of Social Validity Items

Item	*M* (*SD*)
In comparison to before you attended the workshop, how frequently do you believe you engage in effectively delivering, seeking, and receiving feedback?	3.19 (.98)
How frequently do you believe you apply what you learned during the workshop (e.g., use the suggestions for effective feedback interactions)?	3.50 (.73)
How helpful were the scenarios that were presented and discussed during the workshop?	3.25 (1.13)
How satisfied are you with the overall quality of the information presented at the workshop?	3.50 (.89)
The workshop series objectives were clear.	4.07 (.26)
The workshop series fulfilled the objectives.	3.93 (.59)
The information was clearly presented.	4.00 (.38)
The workshop materials were visually appealing.	3.93 (.59)
The structure of the workshop series enhanced my overall understanding of feedback.	3.87 (.64)
The workshop facilitators created an open, respectful environment that supported my learning.	4.27 (.59)
I will say positive things about the workshop.	4.00 (.65)
I would recommend this workshop to my coworkers.	3.87 (.83)
Overall, I learned a lot during the workshop.	3.53 (1.13)

Note. Standard deviations are in parentheses.

Discussion

The purpose of this study was to assess the effectiveness of a job-crafting intervention that focused on increasing social job resources through engaging in feedback-related behaviors. Participants' levels of job crafting, work engagement, and burnout did not meaningfully change following the intervention workshop (i.e., from pre-study to post-study). Participant levels of job

satisfaction, however, decreased following the workshop. Differences in the frequency of feedback-related behaviors before and after the workshop were reported across departments. At the department level, individuals in Rehabilitation Services and Radiology reported slight decreases in feedback-related behaviors, while those in Nutrition Services reported a slight increase in feedback-related behaviors. Slight decreases in feedback-related behaviors were reported at the individual level. Several factors may explain why the job crafting intervention did not result in an overall increase in social job resources and targeted feedback-related behaviors.

Although no changes in job crafting behaviors were observed between pre-study and post-study measures, differences in pre-study scores between those who did and did not complete all study measures existed. Specifically, those who completed all study measures reported higher levels of job crafting behavior than those who only completed the pre-study measures. Individuals' levels of psychological flexibility could have explained this finding; however, levels of psychological flexibility were higher for those who only completed pre-study measures versus those who completed all study measures. This is an unexpected finding, as we would anticipate that those who are more psychologically flexible might be more open to new experiences and training initiatives (Luoma et al., 2007; Varra, Hayes, Roget, & Fisher, 2008) and therefore, more willing to engage in job crafting.

Another unexpected finding was that levels of job satisfaction decreased from pre-study to post-study. Previous studies have established a positive relationship between job crafting and job satisfaction (e.g., de Beer, Tims, & Bakker, 2016). Recently, Hakanan, Peeters, and Schaufeli (2018) found that job satisfaction was not related to job crafting across time. Specifically, four years later, job crafting for social job resources only showed a marginal relationship to job

satisfaction (r = .09). This suggests other factors in the current study may explain the decrease in job satisfaction. This study used a specific job crafting intervention while other studies (e.g., Dubbelt, Demerouti, & Rispens, 2019; van Wingerden et al., 2017; van Wingerden et al. 2016) have measured effects from a general job crafting intervention. It is possible that discussing all four dimensions of job crafting impacts levels of job satisfaction differently than discussing only increasing social job resources.

Though feedback has been positively related to job satisfaction (Hackman & Oldham, 1976), changes in feedback-related behaviors observed during this study were minimal and in varying directions. A change in job satisfaction may not be observed if noticeable increases in feedback-related behaviors are nonexistent. This finding, however, may only explain a lack of relationship rather than a negative relationship between feedback and job satisfaction.

One possible explanation for a decrease in job satisfaction may relate to individuals' preferences for the type of feedback received. Slowiak and Lakowski (2017) found that individuals have different preferences for positive versus constructive feedback statements and different feedback statement sequences. Following the intervention workshop, it is not unreasonable to speculate that participants who increased their frequency of giving feedback may have given feedback that was not preferred by the receiving participant. As a result, if employees were not satisfied with the type of feedback received, they may report lower levels of job satisfaction. Despite this, it is unlikely that an increase in the amount of feedback communicated between employees explains a decrease in job satisfaction because post-study levels of feedback did not differ substantially from pre-study levels (see Tables 7 and 8).

A likely explanation for why the expected changes in and maintenance of feedback-related behaviors did not occur may be that the work environment did not support the behaviors targeted during the workshop. Levels of feedback-related behavior were generally higher immediately following the workshop but quickly returned to baseline levels. This could suggest that the workshop did have an effect but the feedback-related behaviors were not supported so individuals stopped engaging in them. Although the managers in the present study indicated interest, provided verbal and written support for the project beforehand, and participated in the workshop with their employees, they may not have continued to support the behaviors after the workshop was complete. Managers could have supported feedback-related behaviors in the work environment by reinforcing them (e.g., providing praise to an employee for performing well), by prompting employees to give or seek feedback (e.g., asking employees to give or seek feedback on or about a recent patient interaction), or by modeling the behaviors (e.g., providing feedback to an employee or asking for feedback from an employee). As Knesek (2015) states, employees need to see management accept, endorse, and practice these behaviors in order to maintain higher levels of feedback.

Similarly, Mager and Pipe (1997) note that continued support for training is one of the most common reasons that training is ineffective. Hammer, Wan, Brockwood, Bodner, and Mohr (2019) assessed the impact of supervisor support training on the health outcomes of employees. They discovered that the amount of supervisor support reported at baseline moderated their employees' health outcomes. The intervention was more successful for those who reported greater levels of supervisor support at the start of the study than those who reported lower levels of supervisor support.

Strengths

This study benefited from several strengths. First, this study used a multiple-baseline design that allowed for the examination of feedback-related behaviors independently for all three departments. Because of this design, we were able to observe that a slight increase in feedback-related behaviors was reported immediately following each of the workshops. Had the intervention not been effective to any extent, increases in feedback-related behaviors would not have been systematically observed following the invention workshop in each department. Furthermore, during the debriefing session with management, all department managers stated that they perceived both an increase in feedback-related behaviors immediately following the workshop and a decrease in these behaviors over time. These anecdotes are supported by the visual analyses of feedback-related behavior. Therefore, it seems likely the workshop was minimally effective.

The intervention workshop in this study was unique from job crafting workshops used in other studies, as the workshop in the current study focused only on increasing social job resources. Past job crafting workshops, such as one used in Gordon et al. (2018), have covered all aspects of job crafting. This workshop focused only on social job resources to attempt to create a stronger effect between job crafting and the outcome variables. This was a strength of the present study because it allowed for more detailed information on social job resources to be presented to participants. Workshop facilitators were able to spend a greater amount of time providing specific examples of how to effectively engage in feedback-related behaviors as compared to a workshop that covers all aspects of job crafting. In addition, researchers worked with management to ensure the situated experiential learning narratives were tailored to each

department to make them as relevant as possible for participants and included the opportunity to discuss experiences related to giving, seeking, and receiving and accepting feedback. All department managers reported that this was a valuable component of the workshop.

Limitations and Future Research

There are some limitations of the present study. In addition to a small sample size *(n* = 15), the feedback-related behavior survey response rate was low. Participants were emailed a link at three o'clock each afternoon to report the amount of feedback-related behavior in which they engaged. Participants who did not complete the afternoon survey were sent a reminder email at seven o'clock the next morning. However, during the post-study meeting, management shared insights about why this approach may not have been effective. First, some individuals confused the follow-up (reminder) email as the survey for a new day. This email was sent in an effort to get responses from those who did not complete the survey the afternoon before. As this is a common time when individuals are arriving to work, some individuals elected not to fill out the survey because they had not yet had an opportunity to work. Future research could alter the times that surveys are sent and ask participants to indicate which day they are completing the survey for. Management stated that some employees do not check their email before leaving work for the day, so sending emails at times other than three o'clock in the afternoon could increase the response rate. Even with some of these concerns, management thought that email was still the best way to reach participants.

In addition to altering the times emails are sent, future studies could also incentivize participation. Although it is possible individuals may participate simply for a reward, it has been shown that providing an incentive significantly increased the response rates for participants to

complete telephone interviews (Fomby, Sastry, and McGonagle, 2017). For example, offering a small reward to those who complete at least 75% of the daily feedback-questionnaires may increase the response rate. The present study required a substantial amount of information from individuals, and providing an incentive to participants may increase their likelihood of completing all measures.

Although a debriefing meeting was held with management to share results from the study and to obtain management feedback and insights, a follow-up session with employees was not held at any point in time. Other studies (e.g., van den Heuvel, Demerouti, & Peeters, 2015; van Wingerden et al., 2017), have used a reflection session after the job crafting workshop to discuss participants' progress toward their goals and any barriers they may have encountered. Management stated they thought a reflection session approximately one month after the workshop would have been beneficial. Management is also considering discussing feedback during monthly meetings with employees to encourage them to engage in feedback-related behaviors. Future job crafting research should include a reflection session with all participants.

Interestingly, in the follow-up meeting with management, one department manager noted that she was concerned she oversold the workshop to her department's employees. She described the workshop to her employees as a way to solve the problems that the department was facing. She stated that rather than resolving these issues, the workshop made these issues more pronounced. A reflection session may have been able to give employees an opportunity to work through these issues further.

The most frequently reported concern that participants had about engaging in feedback-related behaviors was a lack of time. This was corroborated by management's comments during

the debriefing session. For example, employees in Rehabilitation Services are required to do a substantial amount of documentation, and this was identified as a reason why individuals did not engage in feedback-related behaviors. Management also stated that individuals might still have been uncomfortable engaging in these behaviors. As one example of this, the manager for Radiology stated that some employees in her department were apprehensive about the content of the workshop. These individuals may have felt uncomfortable engaging in feedback-related behaviors for the duration of the study. As a result, participants may have decided not to engage in more feedback-related behaviors and their work environment remained unchanged. Managers stated that some individuals might not have provided praise to coworkers because of the perception that employees are expected to perform well. Individuals might view good performance as an expectation of their job rather than something for which they should receive recognition or acknowledgement. To overcome discomfort with giving and receiving feedback, future research should consider providing more opportunities (e.g., situated experiential learning narratives activities) for participants to both role-play and discuss interpersonal feedback interactions.

Future studies could also be strengthened by providing additional information about management support during the workshop, in addition to the job crafting materials. All employees would still benefit from learning about job crafting, and management would benefit from having additional information provided to them on how to maintain or encourage increases in feedback-related behaviors over time, such as through modeling, prompting, or reinforcing the behaviors. As an alternative to integrating management-specific support strategies into the workshop with employees, an additional meeting could be held with management only. This

meeting should occur as close in time to the workshop with all employees (including management) and could easily be held directly following the workshop.

A final limitation of this study relates to the personal feedback-crafting plan that individuals completed at the end of the workshop. Time was provided at the end of the workshop for individuals to develop a feedback-crafting plan; however, confirmation that all participants completed their plan according to the guidelines was not obtained due to time constraints. Therefore, it is possible that some individuals may have left the workshop without having set appropriate and clear goals that identified specific feedback-related behaviors that could be practiced daily. One way to address this issue may be to extend the length of the workshop. Extending the workshop from two hours to three or four hours long (e.g., Dubbelt, et al., 2019) would allow for additional time to fully complete the personal feedback-crafting plan. Having a longer workshop may also allow for increased opportunities to practice the various feedback-related behaviors, engage in additional situated experiential learning narrative activities, and allow for the integration of information on how to support feedback-related behaviors over time.

Future research could also benefit from examining job crafting as a mediator between the workshop and attitudinal measures. It may be that those individuals who use the skills they are taught (i.e., how to job craft) during the intervention may be the ones that experience positive attitudinal changes whereas those who do not use those skills experience no or small changes. The small number of individuals who completed all study measures *(n* = 15) in this study did not allow for mediation analyses; therefore, we cannot be confident that the results obtained in this study were due to the intervention.

Conclusion

This study was the first to assess the effects of a job crafting workshop specifically focused on increasing social job resources through increasing the amount of feedback-related behaviors in the work environment. Although results showed no improvements in levels of job crafting, job satisfaction, work engagement, or burnout, there is promise in a tailored job crafting workshop. Levels of feedback-related behaviors briefly increased for all departments immediately following the workshop. To sustain behavior change, continued management support is needed (Mager & Pipe, 1997). Future intervention efforts to increase feedback-related behavior that also provide management training to support and sustain trained behavior through modeling, prompting, and positive reinforcement may lead to increased levels of job crafting and wider spread (multi-level) and consistent behavior change within the organizational context.

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Appendices

Appendix A

Social Job Resources portion of the Job Crafting Scale (Tims, Bakker, & Derks, 2012)

I ask my supervisor to coach me.	1 Never	2	3	4	5 Often
I ask whether my supervisor is satisfied with my work.	1 Never	2	3	4	5 Often
I look to my supervisor for inspiration.	1 Never	2	3	4	5 Often
I ask others for feedback on my job performance.	1 Never	2	3	4	5 Often
I ask colleagues for advice.	1 Never	2	3	4	5 Often

Appendix B

Job Satisfaction Scale (Macdonald & MacIntyre, 1997)

I receive a recognition for a job well done.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I feel close to the people at work.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I feel good about working at this company.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I feel secure about my job.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I believe management is concerned about me.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
On the whole, I believe work is good for my physical health.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
My wages are good.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
All my talents and skills are used at	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree

work.					
I get along with my supervisors.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
I feel good about my job.	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree

Sum scores. 42-50 very high, 39-41 high, 32-38 average, 27-31 low, 10-26 very low. The scale is most accurate for those ages between 25 and 60 years old. Job satisfaction seems to be lower for those under 25 and job satisfaction seems to be higher for those over age 60.

Appendix C

Three-Item Utrecht Work Engagement Scale

(Schaufeli, Shimazu, Hakanen, Salanova, & Dewitte, 2017)

At my work, I feel bursting with energy (Vigor)	0 Never	Almost Never 1 A few times a year or less	Rarely 2 Once a month or less	Sometimes 3 A few times a month	Often 4 Once a week	Very often 5 A few times a week
I am enthusiastic about my job (Dedication)	0 Never	Almost Never 1 A few times a year or less	Rarely 2 Once a month or less	Sometimes 3 A few times a month	Often 4 Once a week	Very often 5 A few times a week
I am immersed in my work (Absorption)	0 Never	Almost Never 1 A few times a year or less	Rarely 2 Once a month or less	Sometimes 3 A few times a month	Often 4 Once a week	Very often 5 A few times a week

Appendix D

Oldenburg Burnout Inventory (Demerouti, Mostert, & Bakker, 2010)

I always find new and interesting aspects in my work.	Strongly Agree	Agree	Disagree	Strongly Disagree
There are days when I feel tired before I arrive at work.	Strongly Agree	Agree	Disagree	Strongly Disagree
It happens more and more often that I talk about my work in a negative way.	Strongly Agree	Agree	Disagree	Strongly Disagree
After work I tend to need more time than in the past in order to relax and feel better.	Strongly Agree	Agree	Disagree	Strongly Disagree
I can tolerate the pressure of my work very well.	Strongly Agree	Agree	Disagree	Strongly Disagree
Lately, I tend to think less at work and do my job almost mechanically.	Strongly Agree	Agree	Disagree	Strongly Disagree
I find my work to be a positive challenge.	Strongly Agree	Agree	Disagree	Strongly Disagree
During my work, I often feel emotionally drained.	Strongly Agree	Agree	Disagree	Strongly Disagree
Over time, one can become disconnected from this type of work.	Strongly Agree	Agree	Disagree	Strongly Disagree
After working, I have enough energy for my leisure activities.	Strongly Agree	Agree	Disagree	Strongly Disagree
Sometimes I feel sickened by my work tasks.	Strongly Agree	Agree	Disagree	Strongly Disagree
After my work, I usually feel worn out and weary.	Strongly Agree	Agree	Disagree	Strongly Disagree
This is the only type of work that I can imagine myself doing.	Strongly Agree	Agree	Disagree	Strongly Disagree
Usually, I can manage the amount of my work	Strongly	Agree	Disagree	Strongly

well.	Agree			Disagree
I feel more and more engaged in my work.	Strongly Agree	Agree	Disagree	Strongly Disagree
When I work, I usually feel energized.	Strongly Agree	Agree	Disagree	Strongly Disagree

Appendix E

Work Related Acceptance and Action Questionnaire (Bond, Lloyd, & Guenole, 2013)

I am able to work effectively in spite of any personal worries that I have.	1 Never True	2	3	4	5	6	7 Always True
I can admit to my mistakes at work and still be successful.	1 Never True	2	3	4	5	6	7 Always True
I can still work effectively, even if I am nervous about something.	1 Never True	2	3	4	5	6	7 Always True
Worries do not get in the way of my success.	1 Never True	2	3	4	5	6	7 Always True
I can perform as required no matter how I feel.	1 Never True	2	3	4	5	6	7 Always True
I can work effectively, even when I doubt myself.	1 Never True	2	3	4	5	6	7 Always True
My thoughts and feelings do not get in the way of my work.	1 Never True	2	3	4	5	6	7 Always True

Appendix F

Daily Feedback-Related Behaviors Questions

1. How many times did you ask for feedback from a coworker when a task you were working on was not clear?
2. How many times did you ask for feedback from a supervisor when a task you were working on was not clear?
3. If you asked for feedback, did you use that feedback to change how you were doing the task?
4. How many times did you provide feedback to a coworker?
5. How many times did you provide feedback to a supervisor?
6. How many times did you want to seek feedback but nobody was available to ask?

Appendix G

Schedule of Feedback Surveys

Week	Rehabilitation Services	Radiology	Nutrition Services
1	Pre-Training Questionnaire + FB Behavior Probe	Pre-Training Questionnaire + FB Behavior Probe	Pre-Training Questionnaire + FB Behavior Probe
2	Daily FB Behavior Survey (Tuesday)	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)
3	Training Workshop (Monday)	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)
4	Daily FB Behavior Survey	Daily FB Behavior Survey	FB Behavior Probe (Thurs.)
5	FB Behavior Probe (Thurs.)	Training Workshop (Wednesday)	FB Behavior Probe (Thurs.)
6	FB Behavior Probe (Thurs.)	Daily FB Behavior Survey	Daily FB Behavior Survey
7	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)	Training Workshop (Tuesday)
8	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)	Daily FB Behavior Survey
9	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)
10	Post-Training Questionnaire + FB Behavior Probe	Post-Training Questionnaire + FB Behavior Probe	Post-Training Questionnaire + FB Behavior Probe
11-13	No data collected	No data collected	No data collected
14	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)
18	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)	FB Behavior Probe (Thurs.)