THE IMPACT OF JOB CRAFTING AND WELL-BEING ON THE PERFORMANCE OF HIGH SCHOOL TEACHERS: AN EMPIRICAL STUDY FROM ETHIOPIA

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Abstract

The relationships between high school teachers' well-being and their job crafting are examined in this study. We proposed that need satisfaction and need frustration act as possible strategies among the positive and negative effects of job crafting practices and job-related well-being (work engagement and burnout) based on the job demands-resources approach of the job crafting model and self-determination theory. Our structural equation model, based on cross-sectional data gathered from a sample of Ethiopian high school teachers, showed that creating structural employment resources was favorably correlated with need satisfaction and negatively correlated with need frustration. Raising the level of challenge in a job was found to be positively correlated with need satisfaction, which was found to be correlated with improved work-related well-being. Furthermore, there was a clear positive correlation found between the creation of structural job resources and both work engagement and burnout. Additionally, we discovered that lowering hindrance job demands had a negative correlation with work engagement through need frustration and a good correlation with burnout. The creation of social resources, measures of fundamental psychological needs, and work-related well-being were not shown to be correlated. These results shed light on how high school teachers use job crafting to identify their basic psychological requirements and how their well-being at work reflects this. With significant ramifications for practice and future research, the study extends the theories of job crafting and self-determination.

Keywords: Job crafting; Well-being; High School Teachers; Performance; Psychological needs; Ethiopia

INTRODUCTION

New theories and concepts have been introduced into the study of teacher well-being in recent decades. Positive elements like positive emotions, job satisfaction, and engagement are becoming more and more integrated, even if at first the job-related well-being of teachers was mostly implemented by negative conceptions like stress, strain, negative emotions, and emotional exhaustion (Collie, Shapka, Perry, & Martin, 2015). According to (Viac & Fraser, 2020), "teachers' responses to the cognitive, emotional, health, and social conditions of their work and their profession" is the wide definition of teacher well-being today. Similarly, recent economic expansion and technological advancements have made modern workplaces much more complex and uncertain, which has a big impact on a lot of different kinds of occupations. Large-scale educational changes that have supported both centralization and decentralization policies have been implemented in the school setting in many Western countries (Beausaert, Froehlich, Devos, & Riley, 2016; Mijakoski et al., 2022). More educational standardization (such as through international standardized testing) and stricter school accountability (such as through regular reporting and documentation) are typical components of centralization policies, whereas decentralization entails giving schools more freedom and power in terms of management, administration, and organization. This has led to the expansion and complexity of the high school teacher's position. Teachers now handle a wide range of job responsibilities, including management, administration, education, guidance, funding, planning, and personnel concerns (Beausaert et al., 2016; Dadaczynski, Jensen, et al., 2020). On the one hand, this new paradigm for leadership roles could provide an engaging, fulfilling, and exciting work environment; but, it could also impose demanding and stressful job-related responsibilities (Dadaczynski, Rathmann, Hering, & Okan, 2020). According to recent studies, a large number of educators are highly susceptible to burnout and health problems. For instance, according to (Okan, Paakkari, & Dadaczynski, 2020), 33% of teachers in Finland are in danger of burnout, and nearly half experience high levels of work-related stress. Given their crucial role in both teachers' performance and students' learning outcomes, a decline in teachers' well-being is a crisis for the entire school (Liebowitz & Porter, 2019). Given their crucial role in both teachers' performance and students' learning outcomes, a decline in teachers' well-being is a crisis for the entire school (Liebowitz & Porter, 2019). Job crafting, in which employees maximize their positions for personal gain, may be one strategy teachers use to combat rising workplace stress and the danger of burnout (Wrzesniewski & Dutton, 2001). To this end, this study's main goal is to shed light on the work crafting of high school teachers. Over the past 20 years or so, job crafting has been the focus of a great deal of occupational psychology research, involving workers from a variety of career fields (Frederick

& VanderWeele, 2020; Lichtenthaler & Fischbach, 2019). However, there has not been much research done on job crafting done by employees (teachers) in high school (Shin, Hur, Kim, & Cheol Gang, 2020). To the best of our knowledge, no research has been done specifically on the job crafting of high school teachers in Ethiopia. Furthermore, a growing amount of research has shown that work crafting has a negative aspect, even if the majority of the literature concentrates on its positive aspects. For instance, it has consistently been discovered that attempting to lower expectations at work (also known as minimizing demand crafting) negatively impacts well-being (Bakker & de Vries, 2021; Lichtenthaler & Fischbach, 2019). Determining the mechanisms by which job design enhances or impairs employee well-being is therefore extremely important. To do this, the current study integrates self-determination theory (Ryan & Deci, 2000) with job crafting theory (Bakker & de Vries, 2021). We explore whether basic psychological needs (need satisfaction and need frustration) moderate the impact of job crafting on well-being (work engagement and burnout) by utilizing the self-determination framework.

The theoretical framework and the two study focus variables, job crafting and well-being, are briefly described in the following sections. Next, we outline the reasoning behind our theories. Next, we go over the primary goal of this research, which is to evaluate and hypothesize about the relationship between high school teachers' well-being and their job crafting. Next, we report the study's methodology and findings. Lastly, we present our findings, conclude the study, and offer theoretical implications and recommendations for further research.

LITERATURE REVIEW

A key factor in the growth of an economy is education (Hojat, 2016). Preserving socially responsive political and economic structures as well as producing educated citizens depend heavily on an effective educational system (Peral & Geldenhuys, 2016). The World Economic Forum (2014) asserts that economies hoping to advance up the value chain must prioritize high-quality education. Ethiopia's educational performance is still a major social problem, despite its relevance (Moremi, 2019). According to (Hojat, 2016), to assist improve these circumstances, educators must be driven and enthusiastic. In a similar vein, (Janik, 2015) contends that providing high-quality education depends on having teachers who are in good functional order. According to this study, job crafting is a useful tactic that high school teachers can employ to perform better on the job in terms of psychological requirements and work engagement.

(Wrzesniewski & Dutton, 2001) they promoted the idea of "job crafting" to explain how workers modify their occupations on their initiative. "The physical and cognitive changes individuals make in the task or relational boundaries of their work" is how they characterize job crafting (Wrzesniewski & Dutton, 2001). Following that, (Bakker & de Vries, 2021) extended this description by proposing an alternative model of job crafting that makes use of the Job Demands Resources model (Bakker & Demerouti, 2017). The foundation of the Job Demands-Resources model is the notion that job features can be classified into two categories: job resources and job demands (Bakker & de Vries, 2021; Bakker & Demerouti, 2017). The terms "job demands" and "related psychological and/or physical costs" refer to those components of a job that necessitate prolonged psychological (cognitive and emotional) and/or physical effort (Bakker & Demerouti, 2017). Job demands that present challenges and those that present obstacles were distinguished by (Rich, Lepine, & Crawford, 2010), who expanded on this notion. Challenge job demands are those that have financial costs associated with them but also have the possibility of promoting future rewards and personal development. On the other hand, expectations related to hindrance jobs have undesired limitations or obstacles that obstruct an employee's ability to grow personally and accomplish their goals.

Job crafting, which has its roots in the Job Demands-Resources model, is the proactive adjustments an employee makes to the job demands and resources to better suit their requirements, values, and skills (Tims, B. Bakker, & Derks, 2014). It is assumed that workers will alter the nature of their jobs through four main approaches: (1) expanding job resources (i.e., bringing in autonomy, diversity of skills, and opportunities for growth at work); (2) expanding job resources (i.e., requesting assistance, performance reviews, and coaching from coworkers); (3) expanding challenge job demands (i.e., attaching job demands with the expectation of personal development and work goal achievement); and (4) lowering hindrance job demands (i.e., lowering job demands that impede the achievement of significant goals and developments at work). Recently, a three-level hierarchical structure for job crafting was presented by (Zhang & Parker, 2019). Based on the underlying motivation, the four job crafting behaviors can be classified as approach-oriented or avoidance-oriented using this paradigm. Therefore, approach-oriented crafting is indicated by an increase in structural job resources, social job resources, and challenge work demands, whereas avoidance-oriented crafting is indicated by a decrease in hindrance job demands. This differentiation is essential when evaluating the efficacy of job crafting since the behaviors typically exhibit disparate associations with psychological outcomes (explained in more depth in a subsequent section).

Burnout and job engagement are two well-being dimensions that are strongly related to the Job Demands-Resources paradigm, and they are the main focus of this study. (Maslach, Schaufeli, & Leiter, 2001) define burnout as a psychiatric disorder brought on by a persistent encounter with high levels of work stress. It is characterized by three primary symptoms: diminished professional efficacy, cynicism, and emotional weariness. An indication of weariness brought on by the loss of energy reserves is emotional tiredness. Cynicism is the term for putting one's job on hold to deal with an excessive workload. Diminished professional efficacy refers to the belief in oneself that one is incompetent in carrying out tasks and/or reaching objectives connected to one's job. Conversely, a positive mental state demonstrated by vigor, devotion, and absorption is referred to as work engagement (Schaufeli, Salanova, González-Romá, & Bakker, 2002). When we talk about vigor, we're talking about energetic arousal and mental toughness at work, which is the will to put in effort. A strong work ethic characterized by a sense of challenge, inspiration, pride, and passion is what is meant by dedication. Lastly, absorption denotes a high level of focus on tasks associated with one's job. According to (Bakker & Demerouti, 2017) and (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), the Job Demands-Resources model explains the importance of job demands and job resources, respectively, and links burnout and work engagement to energetic and motivational viewpoints. The process through which extended effort to meet unreasonably high job expectations depletes energy resources and ultimately results in fatigue and poor health is explained by an energetic perspective. On the other hand, a motivational perspective explains how employment resources- both intrinsic and extrinsic- evoke a positive attitude toward accomplishing work goals. Research supports these hypotheses by demonstrating that while job resources positively influence work engagement, job demands positively predict employee burnout (Demerouti et al., 2001; Lesener, Gusy, & Wolter, 2019).

In addition to these associations, studies have shown that job demands that are viewed as challenges are favorably correlated with work engagement, just as job resources are, whereas job demands that are viewed as obstacles are adversely correlated with work engagement (Crawford, LePine, & Rich, 2010). Moreover, it has been discovered that work qualities combine to predict work engagement and burnout. In specifics, workplace demands increase the impact of job resources on work engagement (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007), whereas job resources lessen the influence of job demands on burnout (Bakker & Demerouti, 2018). The Job Demands-Resources model (Bakker & Demerouti, 2017) refers to these relationships and proposes that employees who have more job resources are more likely to manage job demands and that job resources become more useful in predicting employee engagement when job demands are high.

Job Crafting and Well-being

According to (Tims, Derks, & Bakker, 2016), by the framework of the Job Demands-Resources model, workers can reshape their jobs to be less stressful, and also more entertaining and pleasing (Tims, Bakker, & Derks, 2013). Recent meta-analyses have offered strong support for this idea, demonstrating that an increase in job resources and challenge demands is positively associated with work engagement, job satisfaction, and job performance, and negatively associated with burnout (Frederick & VanderWeele, 2020). Moreover, workers in managerial roles have reported some, if modest, advantages from job crafting. For instance, (Cenciotti, Alessandri, & Borgogni, 2017) discovered that creating job resources and challenges positively predicted psychological capital, promotion, and job satisfaction in a sample of middle managers within a service business. (Tims et al., 2014) found that proactive initiatives by managers to increase job resources and seek out more difficulties were positively correlated with store sales success (revenue) among a sample of restaurant store managers. However, work engagement and burnout were not examined in this research; as a result, we addressed this gap by considering our study methodology.

In contrast to the other job crafting strategies, decreasing demands crafting appears to be motivated by a desire to avoid or minimize negative end-states and is consistent with work withdrawal behavior (Zhang & Parker, 2019). This proactive behavior is associated with a disengaging attitude, which lowers employee motivation and role fulfillment at work. Meta-analyses have demonstrated that avoidance crafting is positively associated with turnover intentions and negatively associated with employee work engagement and performance (Rudolph, Katz, Lavigne, & Zacher, 2017). It has even been discovered that this kind of job crafting strongly predicts burnout (Lichtenthaler & Fischbach, 2019). Workplace pressures that are typically hard for employees to handle are indicated by hindrance job expectations (Lichtenthaler & Fischbach, 2019). Thus, avoidance crafting prevents workers from genuinely lowering obstacles associated with their jobs. Stated otherwise, this kind of regulatory endeavor is essentially non-functional, consuming resources and eventually resulting in fatigue.

When combined, approach- and avoidance-oriented crafting have distinct effects on overall well-being. Approach-oriented crafting is an expansive and proactive method that empowers workers to design a creative work environment and fosters personal growth, hence augmenting pleasant and healthful functioning. On the other hand, avoidance-oriented job crafting is a passive, shrinking method that lowers psychological energy and intrinsic work motivation, both of which are harmful to well-being.

Job Crafting, basic psychological needs, and well-being

According to (Wrzesniewski & Dutton, 2001), job crafting stems from a person's desire to establish relationships, maintain a positive self-image, and take charge of some parts of their work. These desires are all intimately related to the basic psychological needs of humans. Therefore, one important result of work designing is the experience of basic psychological needs (Bakker & Oerlemans, 2019). According to self-determination theory, an employee's work environment determines how much of their basic psychological needs are met. The Job Demands-Resources model (Bakker & Demerouti, 2017; Demerouti et al., 2001) also describes how positive parts of the job, such as job resources, can support employees' satisfaction with basic psychological requirements. Similar to this, challenging job requirements offer mastery experiences that could boost worker satisfaction and self-efficacy (Tims, Bakker, & Derks, 2012). According to earlier studies (Olafsen & Frølund, 2018), occupational challenges positively predicted workers' satisfaction with basic psychological requirements. Furthermore, creative work environments and just the right amount of challenge can also keep people from feeling their basic psychological needs unmet. Employee frustration is adversely correlated with employment resources and challenges, according to multiple studies (Orsini, Tricio, Tapia, & Segura, 2019). These results suggest that workers may actively design their work environment to best meet their basic psychological needs (high-need satisfaction and low-need frustration) by taking the initiative to create employment resources and challenges. Research has shown that job crafting and need fulfillment are positively correlated, which lends some credence to this theory (Bakker & Oerlemans, 2019). The current study expands on previous research by taking the need for frustration into account.

Following the above logic, we suggest that when crafting job resources and challenges, high school teachers may be more likely to feel a need for satisfaction and less likely to feel a need for frustration. For instance, high school teachers can enhance their sense of initiative, volition, and mastery as well as satiate their need for autonomy and competence by utilizing job resources like job autonomy and skill variety and looking for more challenges at work (Tims et al., 2012). Simultaneously, by taking proactive measures, high school teachers could be able to lessen the possibility of obstructing these psychological requirements, which might lessen the likelihood of need frustration. Additionally, teachers can fulfill the demand for relatedness by actively seeking out the support and input of their peers, which can strengthen a sense of closeness and camaraderie. (Bakker & Oerlemans, 2019). In addition, by making these efforts, they will be

able to avoid circumstances like interpersonal conflict, which effectively counteracts the frustration of the relatedness desire (Vansteenkiste, Ryan, & Soenens, 2020). Accordingly, we hypothesized as follows:

H1: Need satisfaction has a positive association with increasing structural and social job resources as well as challenging job demands; need frustration is adversely correlated with these factors.

In contrast, the self-determination theory asserts that an employee's fundamental psychological requirements are impeded by unfavorable characteristics of their employment, such as job demands. This risk can be more serious for employment demands that provide hindrances than for those that present challenges. Research has indicated that while employees' need satisfaction increases in response to challenging job demands, it falls in response to hindrance job demands (Albrecht, 2015; Olafsen & Frølund, 2018). Furthermore, need frustration may also be connected to impediment job demands. For example, it has been discovered that higher levels of need frustration are linked to hindered employment demands including role conflict and job insecurity (Trépanier, Fernet, & Austin, 2015). According to (Toyama, Upadyaya, & Salmela-Aro, 2022), research has also revealed a link between constraints job demands, and ill-being, which is a more important result of need frustration than need dissatisfaction. According to meta-analyses, poor psychological effects like depression and burnout are positively predicted by hindrance demands (e.g., role ambiguity, situational limits, hassles, and role overload) (Bakker & Demerouti, 2017). These results suggest that work designing that aims to reduce hindrance demands may rather hinder fundamental psychological needs. Teachers may impede the need for autonomy and competence by, for instance, minimizing cognitively demanding assignments or avoiding proper communication with colleagues. This can lead to an increased sense of uncontrollability and inefficacy. It's also possible that using these passive techniques unintentionally burdens other people or gets in the way of their basic requirements, which leads to conflict between people (Tims, Bakker, & Derks, 2015). As a result, relatedness demands may become frustrated and a sense of denial or isolation may arise (Vansteenkiste et al., 2020). Accordingly, we hypothesized as follows:

H2: Need frustration is positively correlated with fewer hindrances in the form of job demand.

Furthermore, we anticipate that satisfying needs will lead to increased well-being while frustrating needs will result in decreased well-being. According to the self-determination theory, whereas need frustration leads to atrophy and ill-being, need satisfaction encourages growth and well-being (Vansteenkiste & Ryan, 2013). Meeting employees' basic psychological needs encourages internalization and boosts their

psychological vitality and intrinsic motivation. In contrast, employees' inherent drive is undermined and energy cannot be activated when basic psychological requirements are not met. As a result, need frustration predicts these constructs in the opposite direction from need satisfaction (Unanue, Gómez, Cortez, Oyanedel, & Mendiburo-Seguel, 2017), while need satisfaction positively predicts work engagement and negatively predicts exhaustion (Unanue, Rempel, Gómez, & Van den Broeck, 2017; Vansteenkiste, Soenens, & Ryan, 2023). Based on these results, we hypothesized that teachers would report higher levels of engagement and lower levels of burnout if their basic psychological needs were better met, while the opposite would be true if their needs were frustrated. Hence, our third hypothesis is formulated as follows:

H3: Burnout is inversely correlated with need satisfaction and positively correlated with work engagement. On the other hand, need frustration has a positive correlation with burnout and a negative correlation with work engagement.

We contend that need satisfaction and need frustration influence the relationship between work crafting and well-being, based on all of the correlations that have been previously established. According to earlier research (Bakker & Demerouti, 2017; Bakker & Oerlemans, 2019; Slemp & Vella-Brodrick, 2014), creating a job that satisfies fundamental psychological needs is a favorable predictor of employees' well-being. The current study adds to the body of literature by putting out the theory that the relationship between work crafting and well-being may be explained by both need satisfaction and need frustration. In particular, we predicted that high school teachers would create challenges and resources for their jobs to meet their basic psychological requirements. Through these job-constructing activities, they will also be able to avoid establishing jobs that conflict with fundamental psychological requirements and instead develop jobs that are linked to higher levels of engagement at work and lower levels of burnout. High school teachers, on the other hand, may experience greater need frustration if they engage in less demanding work, which will ultimately lead to burnout and a decline in engagement at work. Accordingly, we hypothesized as follows:

H4: Challenge job demands and an increase in structural and social job resources are positively correlated with work engagement and adversely correlated with burnout through need satisfaction and need frustration.

H5: Reducing hindrance in job demands has a negative correlation with work engagement and a positive correlation with burnout via the need for frustration
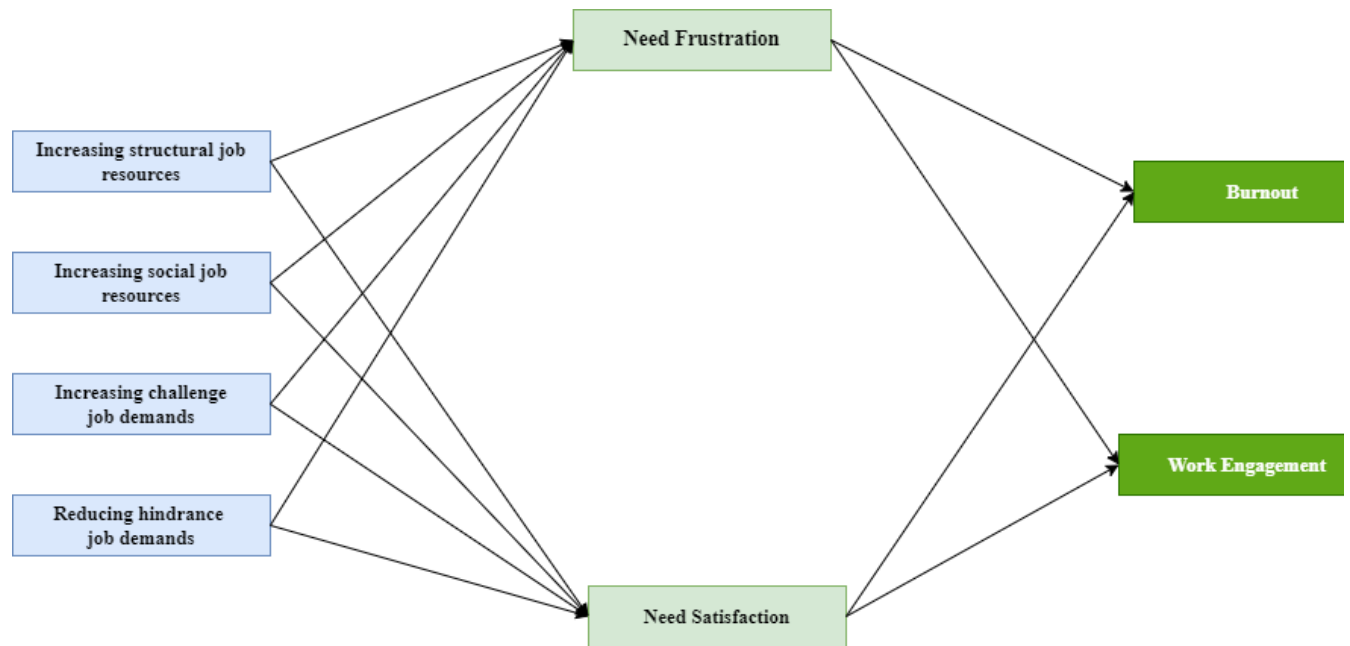
Figure 1 Hypothesized model

METHODOLOGY

In November 2023, a survey was administered to high school teachers in Addis Ababa, Ethiopia. We enlisted participants through the Federal Democratic Republic of Ethiopia's Ministry of Education. First, a brief overview of the research was sent to the participants via email. In addition to the study's primary goal, we disclosed that participation was entirely optional and that the replies would be handled in confidence once they had been utilized exclusively for research. After giving their informed agreement, high school teachers were asked to fill out an online survey. The research protocol was authorized by the Ethical Review Board of the Nanjing University Aeronautics and Astronautics before any research was undertaken, and the entire study was carried out strictly by the rules set forth by the Ethiopian Advisory Board on Research Integrity. 515 high school teachers (response rate = 44.6%) out of the 1,100 who were sent a link to the survey, answered. 490 high school teachers from 245 high schools made up the final sample. The mean age of the participants was 35.5 years (SD = 17.5), with 45.0% of them being men and 55.0% being women. 47% of the high school teachers held a first degree. The participants' average tenure as high school teachers was 4.8 years (SD = 7.1).

Research Design

The fundamental methods utilised to integrate the various elements in a coherent and logical way, guaranteeing that the research problem is appropriately handled, are referred to as

the study design. (Kostoska & Kocarev, 2019). In this study, the majority of this analysis was conducted using the descriptive approach. Finding out what sorts of relationships there were between the variables was the aim of the study. In summary, it investigates the Impact of Job Crafting and Well-being on the Performance of High School Teachers in Ethiopia. According to (Nassaji, 2017), the goal of descriptive design is to precisely and methodically characterize a population, circumstance, or phenomenon. It provides solutions to what, where, when, and how, but not why. On the other hand, research approaches that use inductive reasoning to identify hypotheses that may eventually develop into a significant and formally recognized theory are called the qualitative method.

Measures

The Job Crafting Scale (Tims et al., 2012) was used to measure job crafting. Its 21 components evaluated four job crafting strategies: raising social resources (5 items: "I ask others for feedback on my job performance"), raising challenge job demands (5 items: "I try to make my work more challenging by examining the underlying relationships between aspects of my job"), lowering hindrance job demands (6 items: "I manage my work so that I try to minimize contact with people whose problems affect me emotionally"), and raising structural resources (5 items: "I decide on my own how I do things"). A five-point Likert scale, with 1 denoting never and 5 often, was used to rate the items. When structural resources were increased, Cronbach's alphas were 0.78. The coefficients for expanding social resources are 0.52, increasing challenge job demands are 0.63, and declining hindrance job demands are 0.67.

The Basic Psychological Need Satisfaction and Frustration Scale was used to measure need satisfaction and need frustration at work (Chen et al., 2015). A subset of 12 items, representing 4 categories of autonomy satisfaction (e.g., "I feel that my decisions about my job reflect what I want"), relatedness satisfaction (4 items: e.g., "I feel connected with people who care for me at work, and for whom I care at work"), and competence satisfaction (4 items: e.g., "When I am at work, I feel competent to achieve my goals"), out of the 24 total items, assessed the satisfaction of basic psychological needs. A different set of 12 items measured the degree to which basic psychological needs were not met. These included the following: relatedness (4 items, for example, "I feel excluded from the group I want to belong to at work"), competence (4 items, for example, "I feel insecure about my abilities in my job"), and autonomy (4 items). A 7-point Likert scale, with 1 denoting "strongly disagree" and 7 denoting "strongly agree," was used to rate the items. For every item about need satisfaction, Cronbach's alpha was 0.83, while for every item about need frustration, it was 0.82. The one-factor solution ($\Delta\chi^2$ = 85.02) did not demonstrate the discriminant validity of need satisfaction and need frustration. In contrast, the

two-factor model ($\Delta\chi^2$ = 826.12; CFI = 0.97; TLI = 0.96; RMSEA = 0.08; SRMR = 0.04) did not fit the data as well, according to confirmatory factor analysis (CFA).

The Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006) was used to measure work engagement. It consists of nine items that assess three different aspects of work engagement: vigor (three items that ask, "At my work, I feel bursting with energy"), dedication (three items that ask, "I am enthusiastic about my job"), and absorption (three items that ask, "I am immersed in my work"). Using a seven-point Likert scale, which goes from 1 (strongly disagree) to 7 (strongly agree), participants answered the questions. The scale's Cronbach's alpha was 0.92.

The Bergen Burnout Indicator-15 (Näätänen, Aro, Matthiesen, & Salmela-Aro, 2003) was used to measure burnout. The scale's five items, such as "I am snowed under with work," cynicism (four items, such as "I feel dispirited at work and I think of leaving my job"), and inadequacy (five things, such as "My expectations to my job and my performance have reduced") represent the three main signs of burnout. A 6-point Likert scale, with 1 representing entirely disagree and 6 representing agree, was used to score the items. The scale's Cronbach's alpha was 0.91.

Statistical Analysis

Data analysis was done with Smart PLS versus 20 and SPSS. Utilizing full information maximum likelihood (FIML), a statistical technique that computes a casewise likelihood function utilizing all of an individual's available data, the researcher can estimate a model with missing values (Ritter & Schanz, 2019). The robust maximum likelihood (MLR) approach, which is resistant to non-normality in the observations, was used to estimate the study model.

Pearson's correlation coefficients were computed for the preliminary analysis, along with the means and standard deviations of all the variables that were looked at. Next, CFA was used to assess the factorial validity of the Job Crafting Scale. A chi-square difference test was used to evaluate the proposed four-component model to three, two, and one-factor models. Rising structural job resources and rising social resources were loaded onto one latent factor to specify the three-factor model. The two-factor model included components from the other job crafting dimensions as well as one latent factor represented by decreasing impediment job demands. The null model known as the one-factor model involved loading all of the observations onto a single latent factor.

Finally, to assess the common method variance in the current investigation, we ran Harman's single-factor test (Toyama et al., 2022). The existing data suggests the possibility of common technique bias if factor analysis reveals a single factor structure or if the initial

single factor accounts for more than 50% of the variance of the observations. We tested the structural model we hypothesized, which is shown in Figure 1. All significant covariances between job crafting strategies, need satisfaction and need frustration, and work engagement and burnout were identified, and variables were built in this model by tallying relevant items. The Chi-square statistic, the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), and the Standardized Root Mean Square Residual (SRMR) were used to assess how well the model fits the sample data. Using bootstrapping, the indirect effect was investigated. Ten thousand bootstrap resamples were used to create the lower and upper 95% confidence intervals for the indirect effects in the present mediation model. It is shown that anticipated indirect effects are statistically significant if the 95% CIs fall above or below zero.

RESULTS

Descriptive statistics

The averages, standard deviations, and correlations between each of the variables under investigation are displayed in Table 1.

Table 1 Descriptive Statistics

		Mean	SD	1	2	3	4	5	6	7
1	Increasing structural job resources	4.01	0.42							
2	Increasing social job resources	2.63	0.53	0.26***						
3	Increasing challenges job demands	3.25	0.38	0.43***	0.35***					
4	Reducing hindrances to job demands	2.15	0.31	-0.12***	0.09	-0.11*				
5	Psychological need satisfaction	5.41	0.58	0.47***	0.13***	0.31***	-0.16**			
6	Psychological need frustration	2.87	0.63	-0.24***	-0.12	-0.17**	0.30***	-0.45***		
7	Burnout	3.54	0.75	0.43***	0.24***	0.32***	-0.14**	0.57***	-0.48***	
8	Work Engagement	2.10	0.69	-0.16**	0.06	-0.8	0.19**	-0.46***	0.67***	-0.51***

Note: *, **, *** indicates significant level at 5%, 10% and 1%, respectively.

The dimensionality of the job crafting scale

The four-factor model's fit was notably better than that of the alternative three-factor model ($\Delta\chi^2$ = 112.30, p =0.000), two-factor model ($\Delta\chi^2$= 291.21, p =0.000), and one-factor models ($\Delta\chi^2$= 789.22, p =0.000) models.

This suggests that the four factors that were hypothesized to be distinct were empirically distinguished. Nevertheless, the four-factor model's fit was not very good. According to the follow-up analysis, two elements (growing structural and social job resources) contributed relatively little to their respective components. These two items were consequently taken out of the factor model. The model fit was still insufficient, though. As a result, we thought of a fix utilizing the modification indices. We discovered a significant value between two factors in reducing hindering job demands using index analysis. Since there was a real correlation between these components, we could adjust the model based on the index (Byrne, 2008). Following this intervention, the model's fit (($\Delta\chi^2$ = 2577.45, p =0.000; CFI = 0.93; TLI = 0.92; RMSEA = 0.06; SRMR = 0.07) attained a satisfactory level.

Common method variance

According to Harman's single-factor test, the initial single component only accounted for 24.8% of the variation or less than 50%. Therefore, in the existing data, common technique bias was not a significant issue.

Measurement model: convergent and discriminant validity

The convergent and discriminant validity of the study constructs were assessed using Composite Reliability (CR) and Average Variance Extracted (AVE) before moving on to the hypothesis testing.

The required threshold of 0.60 was satisfied by the CR, which varied from 0.758 to 1.0 (Bagozzi & Yi, 1988). Items below the threshold were removed from the study. AVE was greater than the reference threshold of 0.50 (J. F. Hair, Risher, Sarstedt, & Ringle, 2019). All factor loadings were significant. Nonetheless, the convergent validity of these job crafting constructs is still sufficient because their CR was greater than 0.6 (Fornell & Larcker, 1981; J. F. Hair et al., 2019). Additionally, the discriminant validity was confirmed because the square root of the AVE for each construct was greater than the correlation coefficients with the other constructs (J. F. Hair, 2010).

Hypotheses Testing

Standardized estimates as well as significant pathways are displayed in Fig. 2. The sample data fit the final structural model (($\Delta\chi^2$ = 18.14, p =.002; CFI = 0.97; TLI = 0.95; RMSEA = 0.04; SRMR = 0.03) quite well.

In the relationship between job crafting and fundamental psychological needs, more structural job resources were linked to higher levels of need satisfaction and lower levels of need frustration. Need fulfillment was strongly correlated with challenging work demands. Nevertheless, there was no statistically significant correlation found between the expansion of social job resources and fundamental psychological demands and well-being. H1 was thus only partially backed. H2 was duly confirmed by the positive correlation between need frustration and decreasing hindrances of job demands. Additionally, it was shown that expanding structural job resources had a favorable correlation with both work engagement and surprisingly burnout.

It was also shown that need satisfaction had a positive correlation with burnout and a positive correlation with work engagement. In contrast, need frustration had a negative correlation with burnout and a positive correlation with work engagement. H3 was therefore partially supported. The bootstrapping result demonstrated that increasing structural job resources had substantial indirect effects on need fulfillment in terms of work engagement and burnout (Fig. 2).

Similarly, there were significant indirect effects of increasing challenge job demands on work engagement (β = 0.06) and burnout (β = -0.06) for need satisfaction; additionally, there were significant paths from increasing structural job resources to work engagement (β = 0.03) and burnout (β= -0.11) through basic need frustration; and lastly, there were significant effects of decreasing hindrance job demands on work engagement (β = -0.05) and burnout (β = 0.12) that were significantly mediated by need frustration. Consequently, H4 was partially supported, and H5 was fully supported (O'Brien, 2007), with values between 1.00 and 2.41. Additionally, by dividing the highly correlated elements (i.e., rising structural job resources and increasing challenging job demands, need satisfaction, and need frustration), we tested multiple models and verified that all estimates had comparable directions to those previously reported. By contrasting potential alternative models, the validity of directionality between variables in the final model was verified.
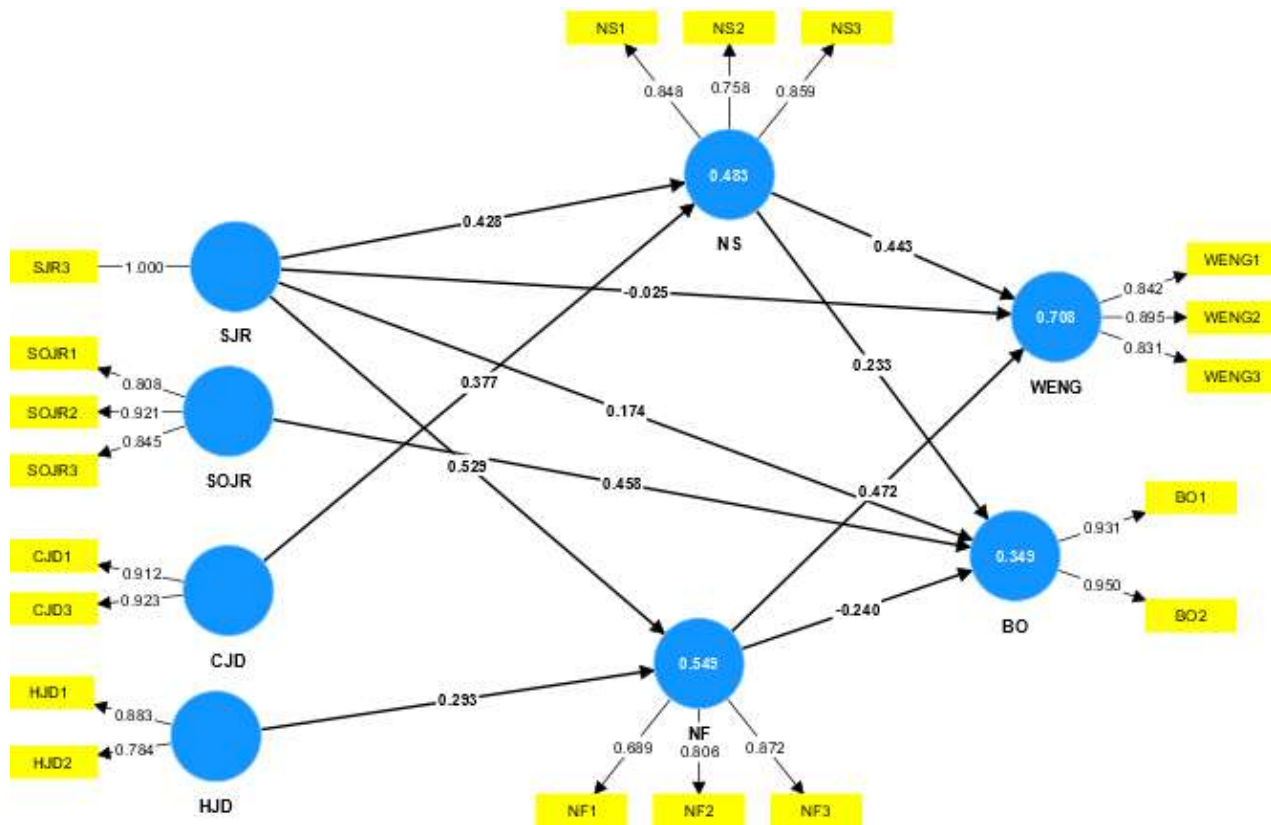
Figure 2 Structural equation modeling of association between study variables

DISCUSSION

The main goal of the study was to concentrate on high school teachers' work crafting. We specifically looked into whether the satisfaction and frustration of basic psychological demands serve as an explanatory mechanism for the relationship between job crafting activities and well-being (burnout and work engagement). We postulated that increasing job resources and difficulties positively predicts need satisfaction and need frustration, which in turn links positively to work engagement and negatively to burnout. Our theory is based on the concerns of job crafting theory and self-determination theory. Reducing hindrance to job demands, on the other hand, is positively linked with need frustration, which is positively connected with work engagement and adversely associated with burnout. The analysis's findings provide some support for the hypotheses. Specifically, we found one negative and two positive pathways: One encouraging avenue is that by meeting fundamental psychological requirements, enhancing structural workplace resources and challenging job demands were associated with higher work engagement and lower burnout. Creating structural job resources also enhances the need for frustration, which was a good predictor of work engagement and a negative predictor of burnout. This is another avenue toward success. Lastly, a negative pathway is that displacing

fundamental psychological needs and lowering obstacles in the workplace positively predicted work engagement and adversely predicted burnout. The following sections describe the main findings, theoretical implications, practical ramifications, and limitations of the current work.

Main Findings: positive and negative pathways

Four distinct behaviors that employees utilize to build their occupations are identified under the Job Demands-Resources-based job crafting theory (Tims et al., 2013): raising structural job resources, increasing social job resources, increasing challenge job demands, and decreasing hindrance job demands. Our findings showed that the most obvious advantage of these actions was the expansion of structural job resources. In particular, this job-creating activity was found to be the only one that both directly and indirectly predicted work engagement, as well as the only one that adversely predicted burnout through need frustration and fulfillment. The most notable outcome of this job crafting is consistent with meta-analyses that demonstrated that the strongest positive predictor of employee well-being outcomes (such as job satisfaction and work engagement) and the strongest negative predictor of employee ill-being effects (such as burnout and turnover intentions) was an increase in structural job resources (Frederick & VanderWeele, 2020). In addition, it was found that high school teachers were the most likely to apply this kind of job crafting (Table 1). This is in line with research conducted with lower-ranking (generic) employees and other supervisors (Roczniewska & Puchalska-Kamińska, 2017). This may help to explain some of the observed associations. It is also feasible that high school teachers and possibly other employees find that boosting structural job resources is the simplest job crafting method to adopt.

Contrary to prior meta-analytic data, it is noteworthy that expanding structural job resources had a direct positive link to burnout (Lichtenthaler & Fischbach, 2019). The teacher's extensive workload could be one reason for these outcomes. As mentioned in the introduction, the workload for high school teachers has increased significantly in terms of both quantity and quality. Teachers may need to be more independent and assertive in their daily job as a result of this increased workload, which could also encourage unhealthy attitudes such as working nonstop and disregarding the boundaries between work and play (Toyama et al., 2022). Research indicates that a high level of work commitment exhausts energy reserves and raises the possibility of burnout (Toyama et al., 2022). Accordingly, earlier research has raised the possibility that approach-oriented work design impedes employees' personal lives (Akkermans & Tims, 2017). However, since this study only uses cross-sectional data, more research with longitudinal data is required to fully understand the connection between burnout and structural resource crafting.

Additionally, our findings demonstrated a significant benefit in terms of rising challenge job demands. In light of this, we discovered that the job crafting technique had a positive correlation with need satisfaction, which in turn had a positive correlation with work engagement and a positive correlation with burnout. Therefore, it's likely that high school teachers can satiate their significant psychological needs and experience a decrease in fatigue and a rise in intrinsic motivation by deliberately seeking out challenging job demands at work. Notably, high school teachers may profit by taking on more duties and/or responsibilities at work, even with their typically demanding schedules. One explanation would be that demanding occupations with more responsibility combined with a high degree of autonomy encourage the development of active jobs (Dadaczynski, Jensen, et al., 2020). This work environment can foster effective learning and a sense of mastery, which support effective stress management and a positive outlook on accomplishing professional objectives (Dadaczynski, Jensen, et al., 2020).

On the other hand, it appears that decreasing job demands is an ineffective approach to job crafting since our research indicates that raising job demands that create obstacles is associated with need frustration, which subsequently leads to burnout and decreased work engagement. In other words, high school teachers may be more likely to create a work climate that fosters feelings of being in charge of their work, socially isolated, and inefficient if they disregard crucial responsibilities and roles as school leaders. Such unmet basic psychological demands lead to fatigue and disengagement, deplete psychological energy, and obstruct intrinsic motivation (Unanue, Gómez, et al., 2017; Vander Elst, Van den Broeck, De Witte, & De Cuyper, 2012). This finding adds to the meta-analyses by suggesting the maladaptive nature of avoidance-oriented job crafting (Lichtenthaler & Fischbach, 2019). Theorized as a coping method to assist employees in safeguarding their health and well-being, lowering demands crafting appears unlikely to have a positive practical impact (Tims et al., 2012). Conversely, it negatively affects a worker's psychological well-being and good functioning. It is important to note that even among high school teachers who were facing an increase in demanding jobs, lowering expectations on their jobs turned out to be an unfavorable job crafting.

Surprisingly, there was no correlation discovered between the other variables under investigation and growing social resources. Therefore, it's feasible that improving intrapersonal job resources and personal development for high school teachers meets their psychological demands and promotes their well-being more so than relying on interpersonal resources. This conclusion may be sample-specific, nevertheless, given that the current sample consisted only of high school teachers in Addis Ababa, Ethiopia. Therefore, it would be crucial to investigate if the relationship between growing social resources, fundamental psychological needs, and well-being is cross-nationally invariant in future research.

CONCLUSION

This work advances the field of job crafting research by presenting the first data supporting the use of two psychological mechanisms- need satisfaction and need frustration, as defined by self-determination theory- to explain why job crafting is beneficial for well-being. Our findings show that high school teachers may actively create an ideal work environment that meets fundamental psychological requirements and promotes well-being by creating structural job resources and challenging job demands. But it's also plausible that work crafting jeopardizes health by intruding into one's personal space. This risk was discovered among high school teachers in connection with growing structural job resource crafting. Furthermore, our results imply that lowering job expectations that cause obstacles could be a destructive job-crafting strategy. High school teachers may be undermining their work-related well-being when they ignore their hindering job demands, as this may be impeding their critical psychological needs. In summary, this study contributes to the growing corpus of research on job crafting among high school teachers. Our findings provide important new insights into how job crafting helps teachers identify their basic psychological requirements and how their subjective well-being at work reflects these needs. Further research, in our opinion, ought to build on this work by utilizing more complex methodological techniques and investigating ways in which high school teachers can optimize the advantages of job crafting. To find the ideal job crafting profile for high school teachers, for instance, researchers may apply a person-centered analytical method. Then, they could use this information to develop successful treatments.

THEORETICAL CONTRIBUTION AND PRACTICAL IMPLICATIONS

This study has significant practical ramifications in addition to making multiple theoretical advances. Firstly, our study broadens the body of prior research by looking at job crafting among high school teachers. Teachers' job crafting has remained an uncharted topic, while high school teacher's job crafting has received little study despite its growing popularity (Viac & Fraser, 2020).

Second, by demonstrating a relationship between job crafting and need frustration as well as satisfaction, this study advances the theory of self-determination. Prior studies only found a connection between job crafting and need satisfaction, indicating that workers can, use workplace resources and challenges to gauge how well their basic psychological needs are being met (Bakker & Oerlemans, 2019). By showing that workers can also manage need frustration through job crafting, the current study adds to the body of knowledge in this area. High school teachers reported feeling less frustrated and more satisfied with their needs, particularly when creating structural job resources. Job crafting with fewer requirements,

however, can be damaging to a person's basic psychological needs. According to our findings, high school teachers who attempt to lessen the demands of their work that cause them to get more frustrated tend to become more needy.

The third conclusion of this study is that distinct job crafting behaviors predicted varied levels of need satisfaction and need frustration, which in turn connected to burnout and work engagement in diverse ways. Highlighting the differences between need frustration and need satisfaction, adds to the body of research on self-determination theory (Frederick & VanderWeele, 2020). According to the self-determination theory, whereas the need for frustration impedes these processes and promotes dysfunction and ill-being, the need for satisfaction is necessary for one to grow and succeed (Vansteenkiste & Ryan, 2013).

According to our research, need satisfaction and need frustration were more strongly associated with work engagement than with burnout. This result is in line with some previous research (Frederick & VanderWeele, 2020) that demonstrated that need fulfillment and need frustration had a stronger capacity to predict well-being and ill-being criteria, respectively.

Fourth, our study adds to the body of research on job crafting by demonstrating how need frustration and need satisfaction account for both the positive and negative relationships between job crafting and outcomes related to well-being. This study demonstrates that need satisfaction also mediates the negative relationship between approach-oriented job crafting and burnout, despite recent literature's demonstration that it is positively associated with work engagement through need satisfaction (Bakker & Oerlemans, 2019). Our findings also imply that frustration can be a significant mediating factor in the relationship between job crafting burnout and work engagement. To be more precise, when high school teachers were actively creating structural job resources, they were more likely to express greater frustration, lower well-being, and more ill-being than when they were proactively lowering burdensome job demands. These results contribute to our understanding of why approach-oriented job crafting indicates avoidance and favorable outcomes for well-being-oriented jobs creating forecasts of unfavorable effects for well-being.

Practically speaking, our results imply that high school teachers could gain from creating structural job challenges and resources. The school board should think about including a job crafting intervention in the teachers' training program to encourage teachers to craft their jobs. For their well-being, high school teachers may be inspired to modify the features of their jobs to better suit their own by learning about the concept of job crafting and its best practices. It would be crucial to emphasize, nonetheless, that if job crafting interacts with the non-work domain, there may be a danger of health damage (Akkermans & Tims, 2017). Furthermore, it should be made clear that lowering expectations is an ineffective strategy for crafting a job. Crucially, prior

studies have demonstrated a reciprocal relationship between burnout and lowering demands on crafting (Lichtenthaler & Fischbach, 2019). Therefore, if a worker relies heavily on this job crafting technique, it could be an indication that they are burnt out right now. In this instance, outside assistance will be required since the person can no longer afford to devote their time to job crafting in an attempt to better the circumstances. The school board might schedule a routine psychological evaluation to find and support these high school teachers.

LIMITATIONS AND FUTURE RESEARCH

The following limitations should be considered when interpreting the current findings. First, the results cannot be applied to high school teachers in other nations because the current sample consisted solely of Ethiopian high school teachers. Thus, to ensure that the current findings can be replicated, cross-national research should be done in future studies. Second, we cannot completely rule out the possibility of response bias given the current response rate, which could lead to a discrepancy between the genuine values in the original sample list and the actual sample. Third, the current findings are susceptible to common method bias because our data was derived solely from self-reporting (J. Hair, Hollingsworth, Randolph, & Chong, 2017). The observed relationships between research variables are distorted by systematic mistakes resulting from the measurement's reliance on a common procedure. Even though Harman's single-factor analysis did not reveal the existence of a significant common method bias in the available data, this risk needs to be more carefully investigated in subsequent research, perhaps by using alternative measurement techniques, gathering data from a variety of sources, or applying statistical corrections. Third, the Job Crafting Scale's modest internal consistency may have had an impact on the outcomes. This is especially concerning for the dimension with the highest social job resources, which has the lowest Cronbach's alpha.

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