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Testing a Model of Some Outcomes of Perceived Supervisor Need Support, Based on SDT

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The purpose of this study was to test a model of some outcomes of perceived supervisor need support based on Deci and Ryan's Self-Determination Theory (SDT). The participants of this study consisted of 193 employees of Marun Oil and Gas Producing Company in Khuzestan, who were selected by stratified random sampling method. The instruments used in the study were **Need Support at Work Scale** (Tafvelin & Stenling, 2018), **Need Satisfaction at Work Scale** (Tafvelin & Stenling, 2018), **Multidimensional Work Motivation Scale** (Gagné et al., 2015), **Employee Well-being Scale** (Zheng et al., 2015), and **Utrecht Work Engagement Scale-9** (Schaufeli et al., 2006). Structural equation modeling (SEM) through AMOS-24 was used for data analysis. The bootstrap procedure also used for testing the significance of the indirect effects. Results indicated that the proposed model fit the data properly. Better fit and more meaningful results obtained by omitting 1 non-significant path (controlled motivation to job engagement) and correlating the errors of 2 paths. Findings showed

that all direct paths except controlled motivation to job engagement were significant. Results also supported the mediating role of need satisfaction and autonomous motivation in these relationships. Based on findings, SDT is a useful framework for predicting employee well-being and job engagement through need support, need satisfaction and motivation.

Keywords: need support, need satisfaction, motivation, well-being, job engagement.

In recent years, mental health and mental pathology perspective have been criticized and revised. From this point of view, the absence of symptoms of mental illness is no longer an indicator of health, but adaptation, happiness, self-esteem, and other positive traits that represent one's primary health and purpose in life are the fulfillment of one's abilities (Ryan & Deci, 2000). Today, the new paradigm of mental health and the branch of positive psychology is trying to avoid focusing solely on mental problems and focusing on the positive aspects of life. The proliferation of theories of Maslow's self-actualization (1962), Rodgers's fully functioning person (1959), and Allport's mature human (1961) have also helped to change the notion of mental health (Abdel-Khalek, 2019). Following the development of these theories and the movement of positive psychology, a group of psychologists used psychological well-being instead of the term mental health because they believed that the term would bring more positive dimensions to the mind (Ryff & Singer, 1998). Since then, the subject of psychological well-being and happiness has devoted a great deal of research to identifying and promoting the positive aspects and strengths of human beings (Proctor, 2014). With the influence of a positive psychology approach to the world of organizations, well-being as a structure that directly affects organizational performance and productivity was considered.

Today, work as a social identity plays an important role in success, health, and well-being of individuals. Since the work environment and work conditions are different from other life domains, it is, therefore, necessary to distinguish the concept of employee well-being from other general well-being concepts (Zheng, Zhu, Zhao & Zhang, 2015). Employee well-being is defined as "the quality of employees' life and their psychological state in the workplace" (Siegrist, Wahrendorf, Knesebeck, Jürges, & Börsch-Supan, 2006). Zheng et al. (2015) in a comprehensive definition of employee well-being, define it as a multi-dimensional construct consisting of three components: psychological well-being, life well-being, and workplace well-being. In this definition, in addition to work aspects, non-work factors such as personal well-being as well as family life well-being are considered as part of employee well-being.

Psychological well-being means having a positive attitude towards oneself, having a positive and intimate relationship with others, a sense of independence and having an active role in life, a sense of control over the environment, a purposeful life and a feeling of continuous growth (Cohen & Shamai, 2010). The life well-being component consists of two dimensions: personal and family. Personal dimension refers to employees' emotions, psychological experience, and the level of satisfaction exhibited in their personal life. Everyday personal experiences can affect one's health and well-being in the workplace. On the other hand, the family aspect is also an integral part of every person's life. Although, work and family life seem to be two separate areas, family conditions can affect employee well-being (Zheng et al., 2015). The last component in Zheng et al. (2015) definition is the workplace well-being, which means the absence of negative

experiences such as anxiety, stress, and burnout in the workplace. Workplace well-being also refers to the quality of life and job satisfaction of employees (Siegrist et al., 2006). This dimension can be influenced by job factors such as salaries, job security, workplace support, management style, and job structure (Page & Vella-Brodrick, 2009). Employee well-being is associated with important outcomes such as job performance (Haddon, 2018; Medina-Garrido, Biedma-Ferrer & Ramos-Rodríguez, 2017), organizational commitment (Veld & Alfes, 2017; Cohen & Shamai, 2010), organizational citizenship behavior (Garg, Rastogi & Kataria, 2015), job satisfaction (Olatunde, 2015), and turnover intention (Amin & Akbar, 2013).

Nowadays, organizations require employees with a good levels of health and well-being, energetic and enthusiastic employees who are highly engaged and passionate about their jobs. Employees, who are engaged in their job, are fully absorbed with their job and perform their job tasks optimally (Bakker & Leiter, 2010). Such employees feel energized and vigorous by their work activities and consider themselves as capable individuals to meet job requirements and demands (Schaufeli & Bakker, 2004). Job engagement is one of the job concepts that has been addressed by the emergence of positive psychology in organizations.

Job engagement, which plays a prominent role in enhancing individual and organization effectiveness, is defined as a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli, Salanova, Gonzalez-Romá & Bakker, 2002). Vigor is characterized by the high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication refers

to being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Finally, absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli, Bakker & Salanova, 2006).

Regarding the importance of employee well-being and job engagement and the influential role of them in positive organizational outcomes such as organizational productivity, job performance, and job satisfaction, it is necessary to consider the factors that make an impact on these two variables. One of these most important factors is work motivation (Slemp, Kern, Patrick & Ryan, 2018; Nie, Chua, Yeung, Ryan & Chan, 2015; Sexton, 2013; Gillet, Gagné, Sauvagère & Fouquereau, 2013). Work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior and to determine its form, direction, intensity, and duration (Pinder, 1998). There are different theories regarding work motivation, each has a different explanation of this variable. One of the new and endorsed theories by many researchers is Deci and Ryan's self-determination theory (SDT), which focuses on the types of motivation in individuals rather than its value (Deci & Ryan, 1985; Deci & Ryan, 2000).

SDT is a macro theory of human motivation that has been successfully applied across domains including parenting, education, healthcare, sports, and physical activity, psychotherapy, and virtual worlds, as well as the fields of work motivation and management (Ryan & Deci, 2017). SDT specifically suggests that both employees' performance and their well-being are affected by the type of motivation they have for their job activities. SDT, therefore, differentiates types of

motivation and maintains that different types of motivation have functionally different catalyzers, concomitants, and consequences (Deci, Olafsen & Ryan, 2017). In this theory, special attention has been paid on two concepts: autonomous motivation and controlled motivation.

Autonomous motivation is defined as engaging in a behavior because it is perceived to be consistent with intrinsic goals or outcomes and emanates from the self. In other words, the behavior is self-determined (Hagger et al., 2014). Autonomous motivation is characterized by people being engaged in an activity with a full sense of willingness, volition, and choice. Often, autonomously regulated activities are intrinsically motivated (Deci et al., 2017). However, perhaps more important to the workplace, is that extrinsically motivated activities can, under the right circumstances, be autonomously motivated, that is, engaged with authenticity and vitality. When individuals understand the worth and purpose of their jobs, feel ownership and autonomy in carrying them out, and receive clear feedback and supports, they are likely to become more autonomously motivated and reliably perform better, learn better, and be better adjusted (Deci et al., 2017). Controlled motivation, in contrast, reflects engaging in behaviors for externally referenced reasons such as to gain rewards or perceived approval from others or to avoid punishment or feelings. Individuals engaging in behavior for controlled reasons, feel a sense of obligation and pressure when engaging in the behavior and are only likely to persist with the behavior as long as the external contingency is present (Hagger et al., 2014). When motivation is controlled, either through contingent rewards or power dynamics, the extrinsic focus that results can narrow the range of employees' efforts, produce short-term gains on targeted outcomes and have

negative spillover effects on subsequent performance and work engagement (Deci et al., 2017; Van den Broeck, Carpini, Leroy & Diefendorff, 2017).

Research shows that autonomous motivation at work is related to important organizational and individual outcomes. For example, autonomous motivation affects performance and has been related to higher levels of effort (De Cooman, Stynen, Van den Broeck, Sels & DeWitte, 2013), persistence (Deci & Ryan, 2000), in-role performance (Moran, Diefendorff, Kim, & Liu, 2012), learning (Roth, Assor, Kanat-Maymon & Kaplan, 2007), creativity (Grant & Berry, 2011), as well as to lower turnover intentions (Williams, Halvari, Niemiec, Sørenbø, Olafsen & Westbye, 2014). Autonomous motivation has furthermore been associated with some aspects of wellbeing, such as higher levels of engagement and job satisfaction (Gillet et al., 2013; Van den Broeck, Lens, De Witte & Van Coillie, 2013) and lower levels of emotional exhaustion and job burnout (Van den Broeck et al., 2013) and more effective coping (Deci & Ryan, 2008; Julien, Senecal & Guay, 2009). In contrast, controlled motivation has not been found to be highly related to any of these outcomes, and may even have negative implications for employee performance and well-being (Gagné et al., 2015).

Based on what was said, it becomes evident that autonomous motivation is a significant advantage for employees and organizations alike, while controlled motivation should be avoided. Hence, it becomes crucial to understand how autonomous motivation can be fostered and controlled motivation can be decreased. In SDT, the satisfaction of three basic needs is considered as a prerequisite for autonomous motivation, while it also has the potential to offset controlled motivation (Gagné & Deci, 2005; Ryan & Deci, 2000).

According to SDT, three basic needs are considered to be crucial, that is, the needs for autonomy, competence, and relatedness. These needs are said to be as essential for optimal psychological functioning as much as water, food, and shelter are for our physical health (Deci & Ryan, 2000). The need for autonomy is defined as individuals' desire to behave in line with their interests, to make their own choices, to express their feelings freely and to initiate their actions (Deci & Ryan, 2000). The need for competence refers to an individuals' sense of being effective and a sense of mastery (Deci & Ryan, 2000). When people are allowed to engage in challenging tasks to develop their skills and when they can adapt to complex and changing environments, their need for competence is satisfied (Jungert, Van den Broeck, Schreurs & Osterman, 2018). Finally, the need for relatedness entails the wish to have caring bonds and positive alliances with others (Deci & Ryan, 2000). The need for relatedness is an important motivational structure because when interpersonal relationships support the need for relatedness, individuals perform their tasks better, become more flexible in stressful situations, and have fewer psychological problems (Reeve, 2018).

Meta-analytic evidence provides support for the expected positive effects of basic needs satisfaction (Van den Broeck, Ferris, Chang & Rosen, 2016). For example, need satisfaction is related to higher levels of job performance (Baard, Deci & Ryan, 2004), organizational commitment (Gagné, Chemolli, Forest & Koestner, 2008), job satisfaction (Van den Broeck, Vansteenkiste, Lens & De Witte, 2010), and lower incidence of job burnout (Van den Broeck, Vansteenkiste, De Witte & Lens, 2008). The satisfaction of the basic needs associates with autonomous motivation, while it may offset more controlled

types of motivation (Van den Broeck et al., 2016). In general, although the needs cannot be reduced to one another, each seems to have similar effects, and many studies examine need satisfaction as an aggregate combining of all three needs (Van den Broeck et al., 2016).

The antecedents of basic needs satisfaction have been widely studied (Van den Broeck et al., 2016). Need satisfaction has been found to arise from high-quality job design, including having many job resources (e.g. task significance, opportunities for skill utilization) and not too many job demands (e.g. politics, role conflict). Need satisfaction may also stem from HR practices such as training and organizational factors including organizational support, justice, and person-organizational fit. The basic needs are furthermore satisfied by leader support, transformational and authentic leadership, while abusive supervision frustrates the basic needs (Van den Broeck et al., 2016). Accordingly, SDT researchers have regularly hypothesized and consistently found that social settings such as workplaces that support satisfaction of the basic psychological needs facilitate autonomous motivation, psychological and physical wellness, and enhanced performance, especially on heuristic activities (Deci et al., 2017).

The support that employees receive in their workplace can be provided by the organization, top-level managers, immediate supervisors or their colleagues. The immediate supervisors who have direct supervision over their subordinates compared to top-level managers, due to the more knowledge of their employees, know their needs better and can provide the conditions to support them (Slemp et al., 2018).

Perceived supervisor need support refers to employees perceptions of supervisor support of their basic psychological

needs. This support includes supervisor support of the employees' needs for autonomy, competence, and relatedness (Williams et al., 2011). In supporting autonomy, supervisors elicit and acknowledge employees' perspectives and feelings before making a recommendation, support employees' choices and self-initiatives, provide a meaningful rationale when advice is given or when a limit is set and minimize pressure and coercion. To support competence, supervisors convey genuine confidence in employees' ability to succeed, identify barriers to success, provide feedback in a non-judgmental way and offer optimal challenges as opportunities for problem-solving. Finally, for supporting relatedness, managers provide unconditional positive regard even when employees do not attain desired outcomes, remain empathic towards employees' concerns and provide a warm interpersonal environment (Williams et al., 2014). In essence, support for autonomy, competence, and relatedness involves supervisors' being interested in and actively engaged with employees, and assuming an employee-centered perspective during interactions at work.

From the perspective of SDT, the reason that need-supportive social contexts promote full functioning and organismic wellness is that such contexts facilitate internalization (Deci & Ryan, 2000), that is, the natural, active process of coming to endorse the value of behaviors that are not inherently satisfying or enjoyable but are important (Ryan, 1993). In other words, the perceived support in the social context by facilitating the process of internalization affects one's sense of autonomy, competence, and relatedness, leading to the satisfaction of these needs. Satisfaction of basic psychological needs also affect motivation (autonomous motivation and controlled motivation), attitude

(well-being, job engagement), and behavior (Williams et al., 2014).

According to our information, no research has been done regarding perceived supervisor need support in Iran. This variable can have positive outcomes for employees and organizations. The purpose of current research was to test a model of some important outcomes of perceived supervisor need support. In the proposed model, need satisfaction, autonomous motivation, controlled motivation, employee well-being, and job engagement are considered as outcomes of perceived supervisor need support (see Figure 1).

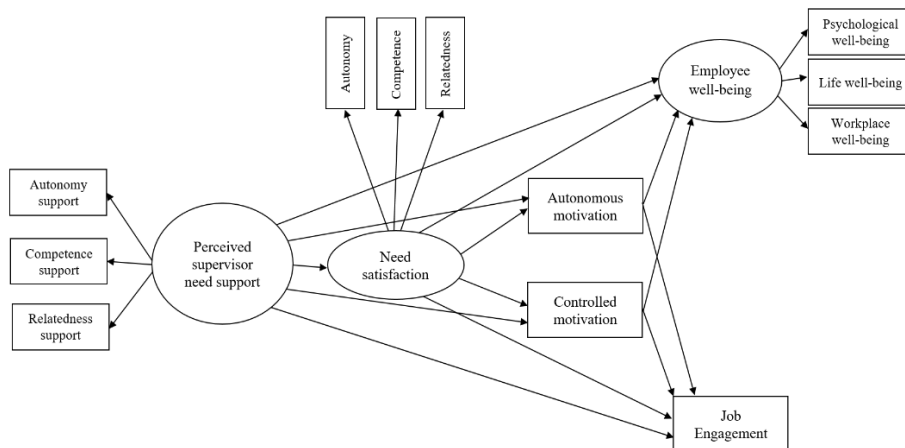


Figure 1. Research proposed model

Method

The statistical population of this research included all employees of Marun Oil and Gas Producing Company in Khuzestan. From this population 220 employees were selected by stratified random sampling method as research sample. The reason for selecting 220 employees as research sample was that 22

parameters were examined in the proposed model and 10 individuals were considered for each parameter (Beshlideh, 2017). Altogether, 193 questionnaires were returned (response rate= 88%). Of the employees in the final sample, 45% were staff employees and 55% line employees (Staff and line are names given to different types of functions in organizations. A "line function" is one that directly advances an organization in its core work and "staff functions" supports the organization with specialized advisory and support functions). The average age was 40.81 years (SD=7.84), and the average tenure was 17.5 years (SD=9.57).

Instrument

Need Support at Work Scale (NSu-WS)

In this study, perceived supervisor need support was measured by Need Support at Work Scale (NSu-WS, Tafvelin & Stenling, 2018). This scale has 12 items and three dimensions of autonomy support (4 items), competence support (4 items), and relatedness support (4 items). Responses are scored from 1 (never/rarely) to 5 (always). Tafvelin and Stenling (2018) reported reliability of the scale using Cronbach's alpha coefficient for autonomy support, competence support, and relatedness support .86, .90, and .92, respectively. This scale has been translated and validated for the first time in the present study. In the present study, the reliability coefficients of autonomy support, competence support, and relatedness support were .88, .93 and .92 using Cronbach's alpha method. To determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results showed that validity of this scale is acceptable (GFI=.92, CFI=.98, RMSEA=.075).

Need Satisfaction at Work Scale (NSa-WS)

Need Satisfaction at Work Scale (NSa-WS, Tafvelin & Stenling, 2018) was used to measure need satisfaction variable in the present study. This scale has 13 items and three dimensions of autonomy (4 items), competence (4 items), and relatedness (5 items). Responses are scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Tafvelin and Stenling (2018) reported the reliability of this scale using Cronbach's alpha coefficient for autonomy, competence, and relatedness .78, .81, and .89, respectively. In the present study, the reliability coefficients of autonomy, competence, and relatedness were .86, .82 and .90 respectively, using Cronbach's alpha method. The results of confirmatory factor analysis also indicates an acceptable validity of this scale (GFI=.90, CFI=.95, RMSEA=.080).

Multidimensional Work Motivation Scale (MWMS)

Multidimensional Work Motivation Scale (MWMS, Gagné et al., 2015) was used to measure autonomous and controlled motivation. This scale has 19 items and six subscales of amotivation (3 items), social external regulation (3 items), material external regulation (3 items), introjected regulation (4 items), identified regulation (3 items), and intrinsic motivation (3 items). Responses are scored on a 7-point Likert scale from 1 (not at all) to 7 (completely). Sum of social external regulation, material external regulation, and introjected regulation items was used to measure controlled motivation and, total sum of identified regulation and intrinsic motivation items were used to measure autonomous motivation. This scale has been translated and validated for the first time in the present study. Reliability coefficients of this scale in Gagné et al. (2015) for different

samples were: French sample .74–.88, English sample .70–.90, Dutch sample .70–.91, Norwegian sample .79–.95, German sample .55–.93, Chinese sample .77–.88, and the Indonesian sample .82–.94. In the present study, the reliability coefficients of social external regulation, material external regulation, introjected regulation, identified regulation, and intrinsic motivation were .88, .80, .87, .91 and .94 respectively, using Cronbach's alpha method. To determine the validity of this scale, a confirmatory factor analysis (CFA) was conducted. The results indicated acceptable validity of this scale (GFI=.88, CFI=.95, RMSEA=.077).

Employee Well-Being Scale

The employee well-being in the present study was measured using the Employee Well-being Scale (Zheng et al., 2015). This scale has 18 items and three subscales of life well-being (6 items), workplace well-being (6 items), and psychological well-being (6 items). Responses were scored on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Zheng et al. (2015) calculated the internal consistency of this scale using Cronbach's alpha coefficients for psychological well-being, life well-being, workplace well-being and total scale .88, .92, .93, and .93, respectively. In the present study, the reliability coefficients of life well-being, workplace well-being, and psychological well-being were .92, .92 and .87 respectively, using Cronbach's alpha method. The result of confirmatory factor analysis indicates an acceptable validity of this scale (GFI=.88, CFI=.93, RMSEA=.084).

Utrecht Work Engagement Scale–9 (UWES-9)

In this study, The Utrecht Work Engagement Scale–9 (Schaufeli et al., 2006) was used for measuring job engagement. This scale has 9 items and three subscales of vigor (3 items), dedication (3 items), and absorption (3 items). Responses were scored on a 7-point Likert scale ranging from 1 (never) to 7 (always). Schaufeli et al. (2006) calculated the reliability of this scale using Cronbach's alpha coefficient in 10 different countries between .85 and .92. In the present study, the reliability coefficients of vigor, dedication, absorption, and the total scale were .86, .88, .82 and .94 respectively, using Cronbach's alpha coefficient. The result of confirmatory factor analysis also indicated acceptable validity of this scale (GFI=.94, CFI=.98, RMSEA=.085).

Results

The correlations among variables, means, and standard deviations are reported in Table 1.

For testing the proposed model, the structural equation modeling (SEM) using AMOS-24 software was used. Before testing the model, four underlying assumptions of structural equation modeling including missing data, outliers, normality and multi-collinearity were investigated. The missing data were replaced by the average value of responses on the question, and outliers were examined by mahalanobis distance, showed there is no outlier. In order to check the normality, skewness and kurtosis and for the multi-collinearity, Tolerance statistic and VIF were calculated. The results indicated the fulfilling of assumptions. The results of testing the proposed and final models according to fit indices are shown in Table 2.

Table 1
Mean, Standard Deviation and Correlation Coefficients Matrix of Research Variables

Variable	Mean	SD	1	2	3	4	5	6
1 Need support	41.95	11.57	1					
2 Need satisfaction	49.10	8.38	.65**	1				
3 Autonomous motivation	30.71	9.29	.50**	.66**	1			
4 Controlled motivation	20.74	5.96	-.23**	-.17**	-.03	1		
5 Employee well-being	99.68	17.01	.58**	.71**	.66**	-.12	1	
6 Job engagement	34.07	7.43	.64**	.71**	.71**	-.08	.79**	1

** P<.01

Table 2
Fit Indices of Proposed and Final Models

	X ²	df	X ² /df	AGFI	GFI	IFI	TLI	CFI	RMSEA
Proposed model	306.10	65	4.71	.79	.87	.92	.89	.92	.118
Final model	171.27	61	2.81	.85	.92	.96	.95	.96	.082

According to the results of Table 2, fit indices of proposed model are not sufficiently desirable. Better fit was obtained by omitting one non-significant path (controlled motivation to job engagement) and correlating the errors of 2 paths (life well-being and psychological well-being, autonomy satisfaction and competency satisfaction). The final model with standardized path coefficients is shown in Figure 2.

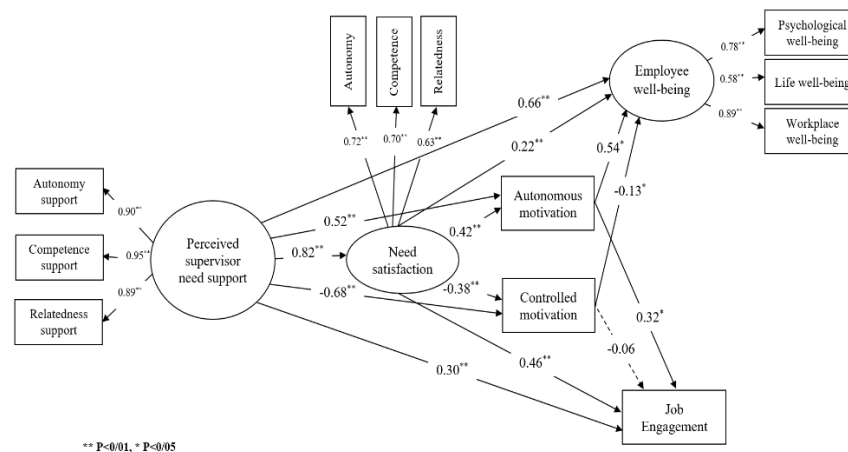


Figure 2. Final model with standardized path coefficients

Figure 2 shows that all direct paths (except controlled motivation to job engagement) are significant at $p < .05$ level.

Because of the proposed mediation effects, bootstrap procedure (using 2000 resampling) was used to determine the 95% bias-corrected confidence intervals around these effects. A confidence interval that did not span zero indicated a statistically significant effect. Table 3 indicates the results for bootstrap analysis.

Table 3
Results for Bootstrap Analysis

Path	Data	Boot	Bias	S.E.	Lower Bounds	Upper Bounds
NSu → NSa → AM	.297	.298	.0005	.0369	.2252	.3691
NSu → NSa → CM	-.121	-.123	.0022	.0401	-.2071	-.0464
NSa → AM → EW	.448	.449	.0014	.0832	.2880	.6156
NSa → AM → JE	.251	.251	.0007	.0411	.1755	.3358
NSa → CM → EW	.003	.003	-.0005	.0163	-.0287	.0372
NSa → CM → JE	.001	.001	.0005	.0064	-.0107	.0154

NSu=Need Support, NSa=Need Satisfaction, AM=Autonomous Motivation, CM=Controlled Motivation, EW=Employee Well-Being, JE=Job Engagement

Table 3 shows that, all the indirect paths except the paths of need satisfaction to employee well-being and job engagement through controlled motivation, are significant.

Discussion

The aim of this study was to test a model of some outcomes of perceived supervisor need support. The results showed that need support has significant positive relationships with need satisfaction (Parfyonova et al., 2019; Chatzisarantis et al., 2019; Tilga, Hein & Koka, 2019), autonomous motivation (Moreira-Fontan, Garcia-Senoran, Conde-Rodriguez & Gonzalez, 2019; O'Neil & Hodge, 2019; Chatzisarantis et al., 2019; Tilga et al., 2019), employee well-being (Parfyonova et al., 2019; Chatzisarantis et al., 2019), and job engagement (Parfyonova et al., 2019; Moreira-Fontan et al., 2019; De Loof, Struyf, Boevende Pauw & Van Petegem, 2019), and significant negative

relationship with controlled motivation (Chatzisarantis et al., 2019; Hodge & Lonsdale, 2011). Research regarding self-determination theory (SDT) show that supervisor support for basic psychological needs is associated with autonomous self-regulation at work as well as indices of psychological health, social wellness and work-related functioning of employees (Williams et al., 2014).

According to SDT, other people can have positive or negative influence on basic psychological needs satisfaction and well-being. When other people engage in need-supportive interpersonal behaviors, individuals will experience improved motivation quality (O'Neil & Hodge, 2019; Chatzisarantis et al., 2019) and positive outcomes such as well-being (Parfyonova et al., 2019; Chatzisarantis et al., 2019). In contrast, psychological needs can be frustrated when people within the individual's social environment engage in or are perceived to engage in, need-thwarting interpersonal behaviors. This can lead to controlled motivation and negative outcomes such as job burnout (De Freese & Smith, 2014). Therefore, by acting in a way that either supports or thwarts others' psychological needs, a supervisor can promote or undermine the quality of motivation, well-being, and job engagement of employees.

The findings also indicated that need satisfaction has significant positive relationship with autonomous motivation and significant negative relationship with controlled motivation. In other words, if the basic psychological needs will be satisfied, employees are spontaneously involved in activities and there is less need for external factors to motivate them. These findings are consistent with the results of Jungert et al. (2018), Van den Broeck et al. (2016), Sexton (2013), and Gagné and Deci (2005). Deci and Ryan (2008) believe that the energy generated

by the satisfaction of basic psychological needs empowers “self” and it makes the person spontaneously have perseverance in important activities. When the need for autonomy is satisfied, people consider themselves as agents and participate in activities spontaneously. The satisfaction of competence need can also influence employees’ motivation, when they feel that they have the necessary ability and competence to accomplish their activities. Also, satisfaction of need for relatedness in the context of the organization which refers to the relationship with other colleagues, supervisors, and managers, creates a sense of trust and security. This sense motivates employees to participate spontaneously in organizational activities.

The results also confirmed the positive effects of basic psychological needs satisfaction on employee well-being and job engagement. This finding is consistent with the results of Parfyonova et al. (2019), Van den Broeck et al. (2016). Deci and Ryan (1985) state that the satisfaction of basic psychological needs affects positive motivational, cognitive, and behavioral outcomes. According to SDT, the satisfaction of basic psychological needs is the source of healthy growth and function. Individuals will grow and function effectively if their basic psychological needs are satisfied, but if their needs are frustrated, they will be more likely to experience ill-being and dysfunctional activities. The satisfaction of basic psychological needs may be understood as psychological resources that reinforce, guide and support individuals’ behaviors (Gagné & Deci, 2005). Therefore, it can be assumed that these resources are directly able to enhance the well-being, motivation and job engagement of employees.

The findings of present study also supported the positive effects of autonomous motivation on employee well-being and

job engagement. These results are consistent with Moreira-Fontan et al. (2019), Chatzisarantis et al. (2019), De Loof et al. (2019), Hagger et al. (2014), Sexton (2013), Gillet et al. (2013), and Hodge and Lonsdale (2011). Regarding the positive role of autonomous motivation in predicting employees' well-being, it can be said that autonomous motivation refers to behavior that is performed out of choice (Ryan & Deci, 2000). Often, autonomously regulated activities are intrinsically motivated. When the employees motivated intrinsically, they tend to display high-quality performance and wellness. Also, the intrinsic motivation and the sense of autonomy that exist in autonomous motivation leads to employees' engagement to their job. Job engagement is one of the important outcomes of autonomous motivation that reflects the attitudes of individuals towards their job characteristics and the amount of effort that one exerts on his (or her) job. Such an effort in job occurs without any sense of compulsion or external incentive, and only because of the pleasure of doing it. Thus, it seems that autonomous motivation is a stimulant for employees' job engagement.

The results also showed that controlling motivation has significant negative relationship with employee well-being, which is in line with the results of previous research (Chatzisarantis et al., 2019; Hagger et al., 2014; Hodge & Lonsdale, 2011). However, the relationship between controlled motivation and job engagement was not significant, which is not consistent with the findings of De Loof et al. (2019). In explaining the negative relationship between controlled motivation and employee well-being, it should be noted that behavior at the level of controlled motivation is strongly influenced by external outcomes and rewards, and the aim is

achieving desirable outcomes and avoiding undesirable' (Van den Broeck et al., 2017). In such conditions, the effort, perseverance, and performance of individuals are dependent on the outside, and if the external conditions are not favorable, the individuals will experience unhappiness, dissatisfaction, and negative emotions, which would endanger his (or her) well-being. On the other hand, the energy used in work activities is also influenced by the outside; therefore the absence of external incentives can reduce the level of effort and energy, and thus the employee's job engagement. Regarding the non-significant relationship between controlled motivation and job engagement, it needs to be said that, in present study the standard coefficients of autonomous motivation, need satisfaction, and need support with job engagement were higher than that of controlled motivation, therefore, the former predictors have a stronger power in explaining job engagement than controlled motivation.

Finally, regarding the indirect effects in present research, the results showed that all of them were significant except the path of need satisfaction to employee well-being and job engagement through controlled motivation.

Like other research, present study had some limitations. First, SDT includes many sub-theories that did not consider in this study. One of them is causality orientation theory, which focuses on individual differences in terms of how people generally construe their motivations as autonomous, controlled, or impersonal. Future research could extend proposed research model by examining causality orientation as additional predictors or moderator of need satisfaction and motivation. Second, given the cross-sectional design of this study, causal relationships among the variables cannot be established. Longitudinal studies should be employed to test the hypotheses.

Longitudinal research clarifies cause and effect relationships. Third, the use of self-report measures may have inherent limitations (e.g., inability to recall, social desirability). A combination of self-report questionnaires and objective assessments would be ideal. Finally, because the participants were employees of Marun Oil and Gas Producing Company, care should be taken in generalizing the findings to other organizations.

This research has some practical implications. Supportive workplace environment requires some features: First, taking the employees' perspective, providing explanatory rationales, using informational language, and acknowledging negative emotions (autonomy-supportive techniques). Second, identifying barriers and obstacles, goal setting, promoting an internal locus of evaluation, and offering clear feedback (competence-supportive techniques). Finally, unconditional positive regard, taking interest in the person, and supervisor authenticity (relatedness-supportive techniques).

SDT as a theory of work motivation has been unique in that, through differentiating motivation into autonomous and controlled types, it has been able to show that autonomous motivation but not controlled motivation of employees promotes both high-quality performance and employee wellness. SDT has long been concerned with specifying empirically the social-contextual conditions that promote autonomous motivation. The key to that evolves from the proposition that all human beings have three fundamental psychological needs—competence, autonomy, and relatedness—which when satisfied promote autonomous motivation, wellness, and effective performance. Thus, SDT has been centrally concerned with promoting the need-supportive conditions across domains.

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