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The Effect of Strengths-based Psychological Climate on Job Well-Being, Positive Affect and Life Satisfaction with Mediating Role of Strengths Use

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The purpose of this study was to investigate the fitness of the model of the effect strengths-based psychological climate on job well-being, positive affect, and life satisfaction, with the mediating role of strengths use. The statistical population of the study consists of the employees of one of the Ahvaz Oil Companies, among whom 120 were selected randomly through simple random sampling. Then, the participants were asked to complete the Strengths-based Psychological Climate ([Van Woerkom & Meyers, 2015](#)), Strengths Use ([Govindji and Linley's, 2007](#)), Job Well-being ([Parker & Hyett, 2011](#)), Positive Affect (PANAS; [Watson, Clark, & Tellegen, 1988](#)) and Life Satisfaction Questionnaires ([Diener, Emmons, Larson, & Griffin, 1985](#)). Structural Equation Modeling (SEM) was used to test the research model. Also, to investigate the significance of the indirect effects of the research model, the bootstrapping method was used. The direct effects of the model showed the significant effect of

strengths-based psychological climate on the strengths use. It was also shown that the effect of strengths use was significant on Job well-being, positive affect, and life satisfaction. Finally, the results showed that all of the indirect effects of the model were significant and the strengths-based psychological climate had a significant effect on the Job well-being, positive affect, and life satisfaction with mediating role of strengths use. Therefore, the proposed model had good fitness. The results of this research suggest that strengths-based psychological climate can have a significant impact on personal and organizational outcomes.

Keywords: strengths-based psychological climate, strengths use, job well-being, positive affect, life satisfaction

Organizational researchers aim to improve organizational effectiveness and enhance employee well-being (Giberson, 2015). Increases in employee well-being tend to be associated with increases in organizational effectiveness (Ilies et al., 2016). In contrast, low levels of employee well-being are associated with a wide variety of negative individual and organizational outcomes, including decreased levels of life satisfaction (Schulte et al., 2015), and increased levels of absenteeism, occupational burnout, and turnover (Ilies et al., 2016). Employees are intrinsically motivated to increase their well-being, and organizations are concerned with low levels of employee well-being because it is associated with increased healthcare costs and lost revenue attributed to low levels of productivity (Juniper, 2013).

The use of character strengths—positive moral characteristics recognized over time and across various cultures and religious traditions—in work settings is associated with increased levels of employee well-being and organizational effectiveness (Harzer & Ruch, 2013). For this reason, organizational researchers are

interested in helping employees increase the use of their strengths in work settings ([Peterson & Park, 2006](#)).

Character strengths are positive, measurable, stable traits that comprise good character: the appreciation of beauty, authenticity, bravery, creativity, curiosity, fairness, forgiveness, gratitude, hope, humor, kindness, leadership, capacity for love, love of learning, modesty, open-mindedness, persistence, perspective, prudence, self-regulation, social intelligence, spirituality, teamwork, and zest ([Peterson & Seligman, 2004](#)). Positive psychologists theorize character strengths—which are recognized across cultures and religious traditions—enable an individual to flourish and live an optimal human life ([Young, Kashdan & Macatee, 2015](#)).

The Character strengths use means identifying strengths and applying them to assigned tasks that have positive psychological consequences ([Peterson & Seligman, 2004](#)). Numerous studies have shown that Character strengths use is associated with positive organizational outcomes including job performance, organizational citizenship behavior, psychological well-being, and job satisfaction ([Linley et al., 2010](#); [Proctor et al., 2011](#); [Harzer & Ruch, 2013](#); [Botha & Mostert, 2014](#); [Douglass & Duffy, 2015](#); [Huber, Webb & Höfer, 2017](#); [Littman-Ovadia, Lavy & Boiman-Meshita, 2017](#)). A longitudinal study showed that character strengths use has a significant positive relationship with self-esteem, vitality, positive affect, and psychological well-being ([Wood et al., 2011](#)).

One way of identifying and extending the impact of employees' strengths on the organization is to have a proper psychological climate called the strengths-based psychological climate. The strengths-based psychological climate is defined as employees' perceptions of the formal and informal policies,

practices, and procedures in their organization concerning the identification, development, use, and appreciation of their strengths (Peterson & Seligman, 2004). What is actually meant by the strengths-based psychological climate is that the organization takes actions such as providing employees with the opportunity to become better acquainted with their strengths, designing and implementing programs to develop employee strengths, encouraging employees to perform and do good work, and giving employees the opportunity to use their strengths (Govindji and Linley's (2007). Research shows that the strengths-based psychological climate has many positive consequences. For example, Van Woerkom and Meyers (2015) demonstrated that strengths-based psychological climate had positive effect on positive affect, life satisfaction, and organizational citizenship behavior.

Peterson and Park (2006) called for more research on character strengths in work settings for two reasons. First, because work plays an important role in the lives of many adults, research that helps individuals exercise their character strengths in work settings could lead to higher levels of happiness and well-being. Second, Peterson and Park argued character strengths can facilitate doing the right thing, which can enhance organizational outcomes. Research on character strengths in work settings therefore, has the potential to enhance both individual well-being and organizational effectiveness (Kaplan et al., 2014).

Given the increasing role and importance of character strengths in organizations, the purpose of this study was to investigate the effect of strengths-based psychological on job well-being, positive affect, and life satisfaction, with mediating role of strengths use (Figure 1).

According to [Parker and Hyett \(2011\)](#), job well-being has four dimensions: Work Satisfaction, Organizational Respect for the Employee, Employer Care, and Intrusion of Work into Private Life. Work satisfaction dimension judgments of the extent to which persons view their work as fulfilling and whether their work increases their sense of self-worth, provide life with some purpose and meaning, and advance their skills. Organizational respect for employees is characterized by items indicating that the respondent judges the senior organization representatives as trustworthy, as having ethical values, and as valuing staff and treating them well. Employer Care encapsulates judgments of the boss: whether he or she is caring, willing to lend an ear, and understanding about work concerns and treat the employees as they seek. The last factor is “Intrusion of Work into Private Life” that shows whether the individual feels stress and pressure at work to meet the targets, found it hard to “wind down” after work, and judges that work disrupts private life ([Parker & Hyett, 2011](#)).

Ong, Kim, Young, and Steptoe (2017) define positive affect as a state of pleasurable engagement with the environment that elicits feelings, such as happiness, enjoyment, passion and contentment that includes both enduring moods (e.g. affective traits) and short-term emotions (e.g. dynamic states) ([Pillay, 2020](#)).

Life satisfaction defined as a “cognitive judgmental process in which individuals assess the quality of their lives on the basis of their own unique set of criteria” (Pavot & Diener, 1993, p. 164; [Cuomo, 2020](#)). Individuals can set their standards as to what is considered a satisfying life and what is not. The idea of life satisfaction centers on one’s personal thoughts about their own life. Thus, one’s life satisfaction is made up of a comparison of

one's perceived life circumstances to a self-imposed standard or a set of standards and the extent to which these conditions match (Cuomo, 2020).

Given the growing role and importance of strengths in organizations, it seems that this issue has not yet found its true place in organizations and most of the processes that take place for the expansion and development of the organization are still based on patterns that address weaknesses. And the shortcomings of the person are considered instead of his strengths, so it is necessary to do enough research in this area in addition to forming a suitable background, to provide the ground for its introduction to users. Therefore, in the present study, a model was designed to investigate the effect of strengths-based psychological climate on job well-being, positive affect, and life satisfaction through the strengths use, which is shown in Figure 1.

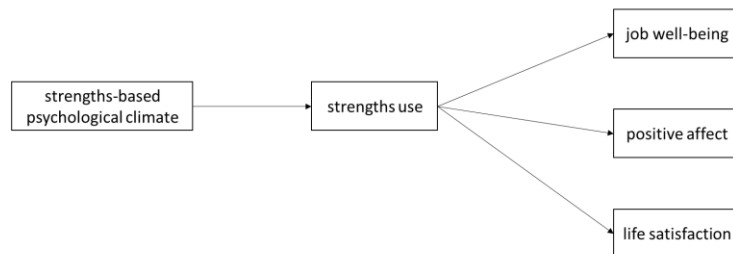


Figure 1. Conceptual Model of Research Research Hypotheses

1. There is a positive and direct relationship between strengths-based psychological climate and strengths use.
2. There is a positive and direct relationship between strengths use and job well-being.
3. There is a positive and direct relationship between strengths use and positive affect.
4. There is a positive and direct relationship between strengths use and life satisfaction.
5. There is an indirect relationship between strengths-based psychological climate and job well-being mediated by strengths use.
6. There is an indirect relationship between strengths-based psychological climate and positive affect mediated by strengths use.
7. There is an indirect relationship between strengths-based psychological climate and life satisfaction mediated by strengths use.

Method

Procedure and Participants

The statistical population of this study consists of employees of one of the Ahvaz Oil Companies. The employees of this organization were 230 persons. From this population, 180 employees were selected by a simple random sampling method as a research sample. A total of 140 questionnaires were completed and returned. Among them, 20 questionnaires were omitted due to non-response to a large number of questions, and the data of 120 individuals were analyzed as the sample using SEM and AMOS 23. In the background of structural equation modeling to determine adequate sample size are a few suggestions. For example, [Chin \(1998\)](#) proposes the law of 30 people for one

variable in the model. In this regard, Hoyle and Kenny (1995) found that if the reliability of the scales is high, the sample size of 50 people also works well ([Beshlideh, 2017](#)). The reason for selecting 120 employees as research sample was that 9 parameters were examined in the proposed model and 10 individuals were considered for each parameter ([Beshlideh, 2017](#)). The level of education of the studied staff was diploma (9.2%), associate (6.7%), bachelor (43.3%), master's (37.5%), and Ph.D. (3.3%). 65% of employees were male, and 35% were female. The mean age of employees was 39.91 and their average work experience was 17.39.

Instruments

Positive Affect

Individuals' affect was assessed with the positive scale of the Positive and Negative Affect Scales (PANAS; [Watson, Clark, & Tellegen, 1988](#)), which has been used and validated in several studies (see Watson & Clark, 1994 for a review). The measure comprises 10 positive emotional adjectives (e.g., interested, excited). Respondents rate the extent to which each adjective reflects their feeling at work, on a scale of 1 (very slightly or not at all) to 5 (extremely). The PANAS has excellent psychometric properties and is one of the most widely used measures of positive and negative affect. [Watson et al. \(1988\)](#) reported good internal consistency for the scale (Cronbach's $\alpha = .87$). In the present research, the Cronbach's alpha was equal to .82.

Strengths Use

The use of strengths at work was assessed with [Govindji and Linley's \(2007\)](#) Strengths Use Scale, which has been validated

and used in previous studies (e.g., [Wood, Linley, Maltby, Kashdan, & Hurling, 2011](#)). The scale comprises 14 items (e.g., my work gives me lots of opportunities to use my strengths). Participants were informed: The following questions ask you about your strengths, that is, the things that you can do well or do best, and were asked to rate their agreement with each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). [Govindji and Linley's \(2007\)](#) reported good internal consistency for the scale (Cronbach's $\alpha = .96$). In the present research, the Cronbach's alpha was equal to .91. The confirmatory factor analysis was also administered on this scale and the indices of NFI, CFI, GFI, IFI, and RMSEA were equal to .95, .95, .95, .95 and .08, respectively. The results of confirmatory factor analysis approved the scale's factor structure.

Life Satisfaction

The life satisfaction was assessed with [Diener et al. \(1985\)](#) global life satisfaction Scale that has 5 items. Each item was rated on a 7-point Likert-style response scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree). The scale scores were computed as the mean of the items. [Diener et al. \(1985\)](#) reported high internal consistency and high temporal reliability for the scale. The two-month test-retest reliability in their study was .82 with a Cronbach's alpha of .87. Item loadings ranged from .61 to .84, with a single factor accounting for 66% of the variance. Also, the scale correlated significantly with related measures (e.g., personality, self-esteem, symptom checklist) and was uncontaminated by social desirability. In the present research, the Cronbach's alpha was equal to .84.

Job Well-Being

To measure job well-being, the [Parker and Hyett \(2011\)](#) job well-being scale was used. The scale has 31 items, and it has 4 dimensions of work satisfaction, organizational respect for the employee, employer care, and intrusion of work into private life. Each item was rated on a 5-point Likert-style response scale 1 (never) to 5 (Very much). Hyett and Parker used the test-retest correlation coefficient to calculate the reliability of this questionnaire. This coefficient is calculated for the whole scale of .91. [Kaabomeir & Naami \(2016\)](#) performed a confirmatory factor analysis for this scale and reported the indices of CFI, GFI and RMSEA equal to .83, .91 and .06, respectively, that indicated acceptable validity of this scale. In the present research, the Cronbach's alpha was equal to .87.

Strengths-Based Psychological Climate

The Strengths-Based psychological Climate was assessed with [Van Woerkom & Meyers \(2015\)](#) Strengths-Based psychological Climate Scale. The scale comprises 12 items. These 14 items were developed in Dutch, translated into English by a professional translator, and then translated back into Dutch by a bilingual researcher ([Brislin, 1970](#)). Example items include the following: "In this organization, my strengths are appreciated" (appreciation); "In this organization, I have the opportunity to learn what my talents are" (identification of talents); "In this organization, I discuss with my superior how I can strengthen my strong points" (development of strengths); and "In this organization, I get the opportunity to do what I am good at" (use of strengths). Answers were given on a 5-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree). [Van](#)

Woerkom et al. (2015) reported that Analyses indicated the suitability of a scale with 12 items and a one-factor structure (Cronbach's $\alpha = .92$). In the present research, the Cronbach's alpha was equal to .84. The confirmatory factor analysis was also administered on this scale and the indices of NFI, CFI, GFI, IFI, and RMSEA were equal to .93, .93, .94, .93 and .09, respectively. The results of confirmatory factor analysis approved the scale's factor structure.

Results

In Table 1, we present mean, standard deviation, and correlations of variables under study.

Table 1
Means, Standard Deviations and Correlations of Study Variables

Variables	M	S.D	Min	Max	1	2	3	4	5
Strengths-based psychological climate	44.48	7.05	12	58	1				
Strengths use	76.97	10.80	34	98	.50**	1			
job well-being	98.49	13.68	54	137	.24**	.42**	1		
life satisfaction	19.38	4.76	5	31	.12	.44**	.40**	1	
positive affect	34.66	6.13	21	50	.22*	.34**	.18*	.29**	1

p<.01** p<.05*

As can be seen in Table 1, a Strengths-based psychological climate was positively related to the Strengths use, job well-being, and positive affect. Besides, all the correlations between the Strengths use with job well-being, life satisfaction and positive affect are significant and positive.

Hypothesized Model Testing

The hypothesized model was tested with structural equation modeling (SEM) using AMOS as shown in Table 2.

Table 2
The Presented Model's Fitting Indicators

Fitting	χ^2	Df	χ^2/df	GFI	AGFI	IFI	TLI	CFI	NFI	RMSE
Hypothesized model	15.51	6	2.58	.95	.88	.91	.84	.91	.86	.11
Final model	7.02	5	1.40	.97	.93	.98	.96	.98	.93	.05

The fit index results indicate that the hypothesized model does not have a satisfactory fit to the data (GFI, AGFI, NFI, CFI, TLI, IFI, and RMSEA are .95, .88, .86, .91, .84, .91 and .11, respectively, RMSEA=.08). For improving fit of the hypothesized model to the data according to the software proposal, residual error of job well-being was attached with a residual error of life satisfaction. As shown in the final model findings (Table 2), the fit index results indicate that the hypothesized model have a satisfactory fit to the data and provides a significantly better fit than suggested model (χ^2 , GFI $\geq .95$, AGFI $\geq .90$, NFI $\geq .95$, CFI $\geq .90$, TLI $\geq .95$ and RMSEA $< .08$).

Figure 2 shows the final model, along with the standard coefficients of the paths and their significance.

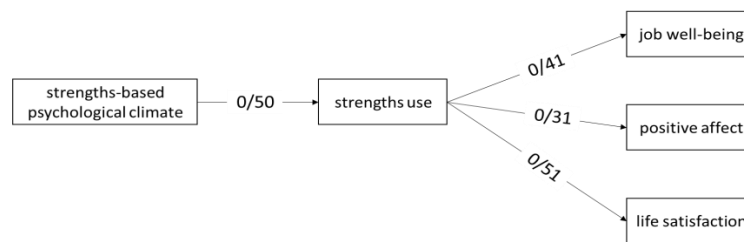


Figure 2. The final model (standardized path coefficients)

According to Figure 2, Strengths-based psychological climate has significant effect on Strengths use ($\beta = .50$, $p = .001$). All the direct relationships from Strengths use to Job well-being ($\beta = .41$, $p = .001$), Positive affect ($\beta = .31$, $p = .002$) and Life satisfaction ($\beta = .51$, $p = .001$) are significant.

Finally, the Bootstrap method was used to determine the indirect effects of Strengths-based psychological climate on job well-being, positive affect, and life satisfaction through strengths use. Bootstrapping is a nonparametric method based on multiple resampling. From each of these samples the indirect effect is computed and a sampling distribution can be empirically generated. Because the mean of the bootstrapped distribution will not exactly equal the indirect effect, a confidence interval can be determined. If zero is not included in the interval, the researcher can be confident that the indirect effect is different from zero. [MacKinnon, Lockwood, Hoffmann, West, and Sheets \(2002\)](#) found that bias-corrected bootstrap confidence intervals had the highest level of statistical power of all methods of testing for

mediation. In the present study, the 95% confidence interval of the indirect effects was obtained with 5000 bootstraps resamples.

Table 3
Results of the Indirect Effects of Variables

Intermediate path	Bootstrap	Lower bound	Upper bound	P
Strengths-based psychological climate → Strengths use → Job well-being	.39	.229	.600	.001
Strengths-based psychological climate → Strengths use → Positive affect	.13	.063	.224	.001
Strengths-based psychological climate → Strengths use → Life satisfaction	.17	.111	.251	.001

The bootstrap 95% confidence intervals show that the distances between the down bound and the upper bound of Strengths use do not cross zero. The absence of zero at these distances ensures the significance of indirect paths. Therefore, the indirect effect results of the mediation analysis in Table 3 confirmed that strengths use to exert a significant mediating role in the relation between the strengths-based psychological climate with job well-being, positive affect, and life satisfaction.

Discussion

The purpose of the present study was to investigate the effect of Strengths-based psychological climate on job well-being, positive affect and life satisfaction with mediating role of Strengths use.

The first result of the current study showed that a Strengths-based psychological climate had a positive effect on Strengths use. This finding is consistent with a finding of [Park & Peterson \(2006\)](#); [Wood et al. \(2011\)](#); [Linley et al. \(2010\)](#); [Els, Viljoen, Beer & Brand-Labuschagne \(2016\)](#). A strengths-based psychological climate, where people feel appreciated because of their unique strengths and where those strengths can be put to work, will facilitate feelings of competence, self-worth, and respect ([Proctor et al., 2011a](#)). Employees who perceived their managers supported them in using their strengths were more likely to employ their strengths at work ([Van Woerkom et al., 2016](#)). Further, leader-member exchange (i.e., the quality of the interaction between an employee and his or her leader) predicted the extent to which the employee felt supported in using strengths in the work setting ([Els et al., 2016](#)). [Kong and Ho \(2016\)](#) found strengths use is largely intrinsically motivated, and employees are more likely to deploy their strengths when managers provide them with the autonomy to make decisions about how to do a given job. That is, when managers give employees relatively high levels of freedom to choose how they will complete a task, employees have more opportunity to bring their strengths to bear on the job at hand. This may, in turn, lead to more positive work experiences and a greater sense of calling ([Harzer & Ruch, 2012, 2015b](#)). A strengths-based psychological climate that enables individuals to identify and enhance their use strengths have been shown to increase long-term happiness and reduce short term

depressive symptoms ([Mongrain & Anselmo-Matthews, 2012](#); [Proyer et al., 2015](#); [Seligman et al., 2005](#)).

Second, results showed that strengths use mediated the effect of Strengths-based psychological climate on job well-being, positive affect, and life satisfaction. These findings are consistent with the finding of [Govindji & Linley \(2007\)](#); [Proctor, Maltby & Linley \(2011\)](#).

Strengths use is also associated with increased overall life satisfaction. [Seligman \(2004\)](#) also suggested that character strengths use is related to a feeling of self with vigor and authenticity, and leads to positive functioning and well-being. [Linley and Harrington \(2006b\)](#) furthermore proclaimed that using strengths causes people to feel good about them and raises their energy level. Similarly according to [Csikszentmihalyi and Seligman \(2000\)](#), exerting and habituating one's character strengths allows people to experience a sense of fulfillment and results in a satisfying life.

Accordingly, AID (attitude, identification, and development), begins with one's "attitude" about the very nature of strengths. According to [Dweck \(2008\)](#) people harbor self theories in which they view their personal qualities as either fixed (entity theories) or malleable (incremental theories). People who hold incremental theories— those attitudes that are the most conducive to ongoing strengths development – are better at some business tasks such as negotiation ([Kray & Haselhuhn, 2007](#)); and in simulations, they show high levels of self efficacy and organizational performance ([Wood & Bandura, 1989](#)). The second aspect of the AID method is "identify. It is necessary to identify strengths before one can appreciably use them as a means of intervention. There are both formal and informal methods of identifying strengths. Formal

methods are principally embodied in strengths assessments such as the VIA, Gallup Strengths Finder, R2 Strengths Profiler, and similar instruments. Formal methods have the advantage of being able to be administered in a larger scale, creating a common language for strengths, providing normative data for comparison purposes, and a greater emphasis on psychometric rigor ([Asplund et al., 2007](#); [Linley & Stoker, 2012](#); [Peterson & Seligman, 2004](#)). Indeed, formal approaches are, arguably, the most common methods of identifying strengths and frequently serve as the centerpiece of organizational training, team building exercises, and management conversations. There is also an informal method of identifying strengths known as “strengths spotting.” Strengths spotting are an open ended method of looking for strengths and using a wide range of potential labels for identifying them. The third and final aspect of the AID approach to working with strengths is the development of strengths. As mentioned before, when strengths are viewed as malleable potentials there is the possibility of developing them. This stands in contrast to the view of strengths as personality traits.

Limitations

First, the results were based on cross-sectional and data gathered via self –reports. This place well-known limits on inferences surrounding causality. Second, this study was conducted with a sample employed exclusively in the manufacturing sector; therefore, the recommendation for future research is a replication study with samples from a broad array of industries.

Practical implications

Organizational stakeholders with a responsibility for enhancing employee wellbeing and organizational effectiveness will benefit from this research. Our study suggests that organizations should amplification the Strengths-based Psychological Climate to create the necessary context for individuals in the organization to be able to recognize and expand strengths and use their strengths to advance their work. Therefore, organizations should Instead of focusing on employee weaknesses, focus on their strengths, because focusing on weaknesses promotes employee performance from poor to moderate rather than weak to excellent. Organizations should increase their efforts to maximize opportunities for employees to do what they are good at and work activities that are based on their strengths so that employees can achieve an ideal level of character strengths. Organizations should also provide useful interventions and training to employees that can be successful in identifying, utilizing, and developing their character strengths.

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References

- Asplund, J., Lopez, S. J., Hodges, T., & Harter, J. (2007). The clifton strengthsfinder 2.0 technical report: development and validation. *The Gallup Organization, Princeton, NJ*.
- Beshlideh, K. (2017). Research methods and statistical analysis of research examples using SPSS and AMOS (For studies in humanities). Ahvaz: Shahid Chamran University Press.

- Botha, C., & Mostert, K. (2014). A structural model of job resources, organisational and individual strengths use and work engagement. *SA Journal of Industrial Psychology*, 40(1), 01-11.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology*, 1(3), 185-216.
- Csikszentmihalyi, M., & Seligman, M. E. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Cuomo, M. (2020). *The Effects of a Character Strengths Intervention on Life Satisfaction and Self-Esteem of High School Students* (Doctoral dissertation, Fairleigh Dickinson University).
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The life satisfaction scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Douglass, R. P., & Duffy, R. D. (2015). Strengths use and life satisfaction: A moderated mediation approach. *Journal of Happiness Studies*, 16(3), 619-632.
- Dweck, C. S. (2008). Can personality be changed? The role of beliefs in personality and change. *Current Directions in Psychological Science*, 17(6), 391-394.
- Els, C., Viljoen, J., Beer, L. D., & Brand-Labuschagne, L. (2016). The mediating effect of leader-member exchange between strengths use and work engagement. *Journal of Psychology in Africa*, 26(1), 22-28.
- Giberson, T. R. (2015). Industrial–organizational psychology and the practice of performance improvement. *Performance Improvement Quarterly*, 28(2), 7-26.

- Govindji, R., & Linley, P. A. (2007). Strengths use, self-concordance and well-being: Implications for strengths coaching and coaching psychologists. *International Coaching Psychology Review*, 2(2), 143-153.
- Harzer, C., & Ruch, W. (2012). When the job is a calling: The role of applying one's signature strengths at work. *The Journal of Positive Psychology*, 7(5), 362-371.
- Harzer, C., & Ruch, W. (2013). The application of signature character strengths and positive experiences at work. *Journal of Happiness Studies*, 14(3), 965-983.
- Harzer, C., & Ruch, W. (2015b). Your strengths are calling: Preliminary results of a webbased strengths intervention to increase calling. *Journal of Happiness Studies*, 16, 1–20.
- Huber, A., Webb, D., and Höfer, S. (2017). The german version of the strengths use scale: the relation of using individual strengths and well-being. *Frontiers in Psychology*, 8, 637.
- Ilies, R., Aw, S. S., & Pluut, H. (2016). Intraindividual models of employee well-being: What have we learned and where do we go from here? *European Journal of Work and Organizational Psychology*, 24(6), 827-838.
- Kaabomeir, N., & Naami, A. (2016). In the effect of perceived organizational justice on organizational loyalty and job well-being with mediating role of social undermining and moderating role of job control in employees of Ahwaz Golestan Hospital. *Journal of Nursing Education*, 5(3), 55-62. (In Persian).
- Kaplan, S., Bradley-Geist, J. C., Ahmad, A., Anderson, A., Hargrove, A. K., & Lindsey, A. (2014). A test of two positive psychology interventions to increase employee well-being. *Journal of Business and Psychology*, 29(3), 367-380.

- Kong, D. T., & Ho, V. T. (2016). A self-determination perspective of strengths uses at work: Examining its determinant and performance implications. *The Journal of Positive Psychology*, 11(1), 15-25.
- Kray, L. J., & Haselhuhn, M. P. (2007). Implicit negotiation beliefs and performance: Experimental and longitudinal evidence. *Journal of Personality and Social Psychology*, 93(1), 49.
- Juniper, B. (2013). Business case for wellbeing. *Occupational Health*, 65(5), 23–25.
- Lavy, S., & Littman-Ovadia, H. (2017). My better self: Using strengths at work and work productivity, organizational citizenship behavior, and satisfaction. *Journal of Career Development*, 44(2), 95-109.
- Linley, A., & Stoker, H. (2012). Technical manual and statistical properties for Realise2. *Coventry: Centre of Applied Positive Psychology*.
- Linley, P. A., & Harrington, S. (2006b). Strengths coaching: A potential-guided approach to coaching psychology. *International Coaching Psychology Review*, 1, 37–46.
- Linley, P. A., Nielsen, K. M., Gillett, R., & Biswas-Diener, R. (2010). Using signature strengths in pursuit of goals: Effects on goal progress, need satisfaction, and well-being, and implications for coaching psychologists. *International Coaching Psychology Review*, 5(1), 6-15.
- Littman-Ovadia, H., Lavy, S., & Boiman-Meshita, M. (2017). When theory and research collide: Examining correlates of signature strengths use at work. *Journal of Happiness Studies*, 18(2), 527–548.
- MacKinnon, D. P., Lockwood, C. M., Hoffmann, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test the

- significance of mediation and other intervening variable effects. *Psychological Methods*, 7, 83-104.
- Mongrain, M., & Anselmo-Matthews, T. (2012). Do positive psychology exercises work? A replication of Seligman et al. *Journal of Clinical Psychology*, 68(4).
- Parker, G. B., & Hyett, M. P. (2011). Measurement of well-being in the workplace: The development of the Work Well-Being Questionnaire. *The Journal of Nervous and Mental Disease*, 199(6), 394-397.
- Park, N., & Peterson, C. (2006). Character strengths and happiness among young children: Content analysis of parental descriptions. *Journal of Happiness Studies*, 7(3), 323-341.
- Park, N., Peterson, C., & Seligman, M. E. (2004). Strengths of character and well-being. *Journal of social and Clinical Psychology*, 23(5), 603-619.
- Peterson, C. (2006). *A primer in positive psychology*. Oxford university press.
- Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: A handbook and classification. New York, NY: Oxford University Press.
- Peterson, C., & Park, N. (2006). Character strengths in organizations. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 27(8), 1149-1154.
- Peterson, C., Park, N., & Seligman, M. E. (2005). Orientations to happiness and life satisfaction: The full life versus the empty life. *Journal of Happiness Studies*, 6(1), 25-41.
- Peterson, C., & Seligman, M. E. (2012). Character Strengths and Virtues: A Handbook and Classification (New York:

- American Psychological Association & Oxford University Press, 2004). *Reflective Practice: Formation and Supervision in Ministry*, 32.
- Pillay, D. (2020). Positive affect and mindfulness as predictors of resilience amongst women leaders in higher education institutions. *SA Journal of Human Resource Management*, 18, 10.
- Proctor, C., Maltby, J., & Linley, P. A. (2011). Strengths use as a predictor of well-being and health-related quality of life. *Journal of Happiness Studies*, 12(1), 153-169.
- Proyer, R. T., Gander, F., Wellenzohn, S., & Ruch, W. (2015). Strengths-based positive psychology interventions: A randomized placebo-controlled online trial on long-term effects for a signature strengths-vs. A lesser strengths-intervention. *Frontiers in Psychology*, 6, 456.
- Ruch, W., Martínez-Martí, M. L., Proyer, R. T., & Harzer, C. (2014). The character strengths rating form (csrf): development and initial assessment of a 24-item rating scale to assess character strengths. *Personality and Individual Differences*, 68, 53-58.
- Seligman, M. E. (2004). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Simon and Schuster.
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American Psychologist*, 60(5), 410.
- Schulte, P. A., Guerin, R. J., Schill, A. L., Bhattacharya, A., Cunningham, T. R., Pandalai, S. P., ... Stephenson, C. M. (2015). Considerations for incorporating “well-being” in public policy for workers and workplaces. *American Journal of Public Health*, 105(8), e31–e44.

- Van Woerkom, M., & Meyers, M. C. (2015). My strengths count! Effects of a strengths based psychological climate on positive affect and job performance. *Human Resource Management*, 54(1), 81-103.
- Van Woerkom, M., Oerlemans, W., & Bakker, A. B. (2016). Strengths use and work engagement: A weekly diary study. *European Journal of Work and Organizational Psychology*, 25(3), 384-397.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063.
- Watson, D., & Clark, L. A. (1999). The PANAS-X: Manual for the positive and negative affect schedule-expanded form.
- Wood, A. M., Linley, P. A., Maltby, J., Kashdan, T. B., & Hurling, R. (2011). Using personal and psychological strengths leads to increases in well-being over time: A longitudinal study and the development of the strengths use questionnaire. *Personality and Individual Differences*, 50(1), 15-19.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56(3), 407.
- Young, K. C., Kashdan, T. B., & Macatee, R. (2015). Strength balance and implicit strength measurement: New considerations for research on strengths of character. *Journal of Positive Psychology*, 10, 17-24.