

# Can strengths use at work reduce the deleterious effect of depressive and anxiety symptoms on work functioning?

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## Abstract

**Objectives:** The aim of the present study was to examine the association between strengths use at work and mental health related work functioning. This study also seeks to test the moderating effect of strengths use in the association between depressive and anxiety symptoms and work functioning. **Methods:** A cross sectional study was conducted among 331 workers. Participants answered a self-reported questionnaire assessing their depressive and anxiety symptoms, level of work functioning, and perception concerning the use of their strengths at work. **Results:** Results indicated that strengths use at work was negatively associated with impaired work functioning, impaired productivity and troublesome symptoms at work. Moderation analysis also indicates that high strengths use at work lessens the association between depressive and anxiety symptoms and impaired work functioning and productivity. **Conclusions:** Frequently using one's strengths at work could decrease productivity problems as well as the presence of troublesome symptoms while working. It could also reduce the negative association between depressive and anxiety symptoms and work functioning and productivity. Workers living with depressive or anxiety symptoms are encouraged to identify their strengths and to use them at work as much as possible.

**Keywords:** Strengths use, mental health, work functioning, depression, anxiety

## Abstrait

**Objectifs:** Le but de la présente étude était d'examiner le lien entre l'utilisation des forces au travail et le fonctionnement professionnel lié à la santé mentale. Cette étude cherchait également à tester l'effet modérateur de l'utilisation des forces dans l'association entre les symptômes dépressifs et anxieux et le fonctionnement au travail. **Méthodes:** Une étude transversale a été menée auprès de 331 travailleurs. Les participants ont répondu à un questionnaire évaluant leurs symptômes dépressifs et anxieux, leur niveau de fonctionnement au travail et leur perception concernant l'utilisation de leurs forces au travail. **Résultats:** Les résultats indiquent que l'utilisation des forces au travail est associée négativement à une altération du fonctionnement du travail, une perte de productivité et des symptômes gênants au travail. L'analyse de modulation indique également que l'utilisation fréquente des forces au travail réduit le lien entre les symptômes dépressifs et anxieux, ainsi que le fonctionnement et la productivité du travail. **Conclusions:** L'utilisation fréquente des forces du travail pourrait réduire les problèmes de productivité ainsi que la présence de symptômes gênants au travail. Cela pourrait également réduire l'association négative entre les symptômes dépressifs et anxieux et le fonctionnement et la productivité du travail. Les travailleurs vivant avec des symptômes dépressifs ou anxieux sont encouragés à identifier leurs forces et à les utiliser autant que possible au travail.

**Mots clés:** Utilisation des forces, santé mentale, fonctionnement au travail, dépression, anxiété

## INTRODUCTION

Depression and anxiety are two leading causes of disability worldwide (WHO, 2017). These two disorders particularly affect adults of working age (Sutherland & Stonebridge, 2015). Most workers affected by them usually work despite their illness

(Matrix, 2013; Sanderson & Andrews, 2006; Statistics Canada, 2014). However, many studies have found depressive and anxiety symptoms to be negatively associated with work functioning (Lerner et al., 2010; Plaisier et al, 2012; Sanderson & Andrews, 2006), defined as "the ability of a

worker to accomplish work demands given his or her state of health” (Abma, van der Klink, Terwee, Amick, & Bültmann, 2012, p.6). This negative effect holds even when depressive and anxiety symptoms fall below clinical thresholds (Martin, Blum, Beach, & Roman, 1996). The costs associated with mental health related work functioning are worrisome. Evans-Lacko and Knapp (2016) found that, among depressive workers, the costs of presenteeism, defined as “lost productivity arising from attending work while unwell” (Sanderson & Andrews, 2006, p.64), were five to ten times higher than those associated with absenteeism, and, on a yearly basis, range from \$6 billion in Canada to \$84 billion in the USA (Evans-Lacko & Knapp, 2016) and £15 billion in the UK (Sainsbury Centre for Mental Health, 2007).

Given the importance of the phenomenon, it is surprising to find that very few studies have examined factors that may moderate (especially reduce) the negative effect of depressive and anxiety symptoms on work functioning (Lagerveld et al., 2010). Using one’s strengths at work could be an interesting avenue to consider. Indeed, strengths use at work has been associated with increased work performance (Dubreuil, Forest, & Courcy, 2014; Lavy & Littman-Ovadia, 2017; Littman-Ovadia, Lavy, & Boiman-Meshita, 2017) and could therefore also improve mental health related work functioning. Moreover, a meta-analysis by Sin and Lyubomirsky (2009) reported that positive psychology interventions, such as strengths use at work, were even more efficient for depressed than for non-depressed individuals. In line with these findings, the aim of the present study was to examine the association between strengths use at work and mental health related work functioning. This study also seeks to test the moderating effect of strengths use at work on the association between depressive and anxiety symptoms and work functioning.

### Depression and anxiety in the workplace

Depression is characterized by the presence of at least five of the following symptoms for at least two consecutive weeks: depressed mood, loss of interest, sleep disturbances, change in appetite, fatigue, difficulty concentrating, restlessness or slowing down of activities, feelings of futility or guilt, and the presence of suicidal ideation (APA, 2013). Anxiety disorders are characterized by a feeling of fear and excessive anxiety (APA, 2013). Types of anxiety disorders differ depending on the object or situation causing fear or anxiety. Specific phobia is characterized by fear and avoidance of specific objects or situations (e.g., an animal), social phobia by fear or avoidance of social situations, panic

disorder by fear of reliving other panic attacks and avoidance of situations associated with them, and agoraphobia by fear and avoidance of places where escape could be difficult (APA, 2013). Generalized anxiety is characterized by excessive and persistent anxiety in relation to various subjects (APA, 2013).

The employment rate of people living with depression and anxiety is high (60-70%), and these two disorders are considered the two most common mental health problems found in the workplace (Matrix, 2012; Sanderson & Andrews, 2006). Studies from the US, the Netherlands, Australia, and Canada indicate that depression affects between 2.5% and 7.4% of the workforce (Kessler & Frank, 1997; Laitinen-Krispijn & Bijl, 2000; Lim et al., 2000; Wang et al., 2006). In addition, between 2.6% and 11.6% of workers experience anxiety disorders (Kessler & Frank, 1997; Laitinen-Krispijn & Bijl, 2000; Wang et al., 2006).

Given their symptoms, it is not surprising to find a negative association between depression and anxiety, and work functioning. Indeed, these two disorders have been related to impaired work performance and presenteeism (Plaisier et al., 2012). More specifically, depressive symptoms have been associated with difficulty with time management, and performing physical, mental, and interpersonal tasks (Burton, Pransky, Conti, Chen, & Edington, 2004; Lerner et al., 2010). The fatigue caused by depression and anxiety have also been associated with decreased concentration, and difficulty prioritizing tasks and making decisions (Bertilsson, Petersson, Östlund, Waern, & Hensing, 2013). Finally, problems with emotional regulation caused by these two illness have been linked to tense interpersonal relationships with colleagues and clients (Bertilsson et al., 2013).

Despite the significant consequences of depressive and anxiety symptoms for employees while they are at work, to date, more studies have focused on factors influencing work participation, including work absenteeism and time taken before returning to work following sick leave (Lagerveld et al., 2010). However, in a study among seven European countries, Evans-Lacko and Knapp (2014) found that only 20% to 55% of workers living with depression reported having had to stop working because of their illness (Evans-Lacko & Knapp, 2014). Thus, the majority of workers with depression and anxiety usually stay at work and have to face the challenge of managing symptoms inherent to their illness while working. There is a need for studies examining such employees and identifying factors that might influence their work functioning. Positive psychology interventions, aimed at increasing positive feelings, cognitions and behaviors rather

than diminishing symptoms or pathology, could be helpful in this sense (Sin and Lyubomirsky, 2009). Among positive psychology interventions, strengths use at work has previously been associated with many positive outcomes (Dubreuil et al., 2014; Forest et al., 2012; Govindji & Linley, 2007; Harzer & Ruch, 2012; Harzer & Ruch, 2013; Lavy & Littman-Ovadia, 2017; Littman-Ovadia, 2010; Littman-Ovadia et al., 2017) and could be interesting to consider.

### Strengths use at work

Strengths are defined as “positive traits, reflected in thoughts, feelings and behaviors” (Park, Peterson, & Seligman, 2004, p.603). These natural and authentic capacities boost energy and lead to optimal performance (Govindji & Linley, 2007). Each individual has a number of dominant strengths, referred to as signature strengths (Peterson & Seligman, 2004). In a workplace setting, the opportunity to use one’s signature strengths has been associated with many positive outcomes. Studies have found associations between strengths use at work and job satisfaction, engagement, well-being, vitality, work meaningfulness, and perception of one’s job as a calling (Dubreuil et al., 2014; Forest et al., 2012; Govindji & Linley, 2007; Harzer & Ruch, 2012; Harzer & Ruch, 2013; Lavy & Littman-Ovadia, 2017; Littman-Ovadia & Steger, 2010; Littman-Ovadia, 2017). Two experimental studies have also shown that using signature strengths in different ways increases happiness and decreases depression (Gander, Proyer, Ruch, & Wyss, 2013; Seligman, Steen, Park, & Peterson 2005), although these studies were not conducted in a workplace context. Finally, empirical studies have reported associations between strengths use at work and increased in role (e.g. work productivity) and extra role (e.g. occupational citizenship behaviors) performance, as well as decreased counterproductive work behaviors (Dubreuil, et al., 2014; Lavy & Littman-Ovadia, 2017; Littman-Ovadia et al., 2017). However, in a recent intervention study, Dubreuil et al., (2016) nuanced these results and found that only participants who reported a major increase in strengths use also reported an improvement in work performance, which suggests a certain threshold effect in order for strengths use to influence work performance.

To our knowledge, the association between strengths use and mental health related work functioning has never been tested. Given its positive association with work performance, strengths use might also increase mental health related work functioning

and alleviate the negative effect of depressive and anxiety symptoms on this variable. However, mental health related work functioning also differs from work performance in that it focuses on impaired workers and the effect of their illness on their ability to meet work demands (Boezeman, Nieuwenhuijsen, de Bekker-Grob, van den Akker-van, & Sluiter, 2015). The association between strengths use and mental health related work functioning remains to be tested, and this will be the first objective of the present study. The second objective of the study will be to test the moderating effect of strengths use at work in the association between depressive and anxiety symptoms and mental health related work functioning.

## METHODS

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### Procedure and participants

This study was approved by the Université du Québec à Montréal and Wilfrid Laurier University’s research ethics review boards. Participants were recruited through an advertisement posted on classified sites (e.g., Kijiji, Craigslist), social media (e.g., Facebook) and the web sites of various community mental health organizations. In order to maximize participation, the advertisement was also sent to a list of participants who had already agreed to participate in research projects in psychology. The ad contained brief information about the study goals, implications for participants, a link to the online questionnaire and principal investigator contact information. To compensate for their time, all participants were included in a draw of six \$50 Amazon gift cards that was conducted at the end of the study. To participate, subjects had to click on the link of the online questionnaire that was included in the advertisement. They were then directed to a secure site (Limesurvey) where they first had to read the consent form. If they agreed to participate in the study, they had to answer three questions to determine if they met the inclusion criteria: 1) being 18 or older, 2) working at least 10 hours per week, and 3) reading and understanding French. Since symptoms of depression or anxiety may affect work performance, even if they are below the clinical threshold (Martin et al., 1996), participants did not have to have been diagnosed with anxiety or depressive disorders.

### Instruments

**Sociodemographic characteristics.** Participants had to indicate their age, gender, perceived economic status (0=poor or very

poor, 1= sufficient income or financially comfortable) and work schedule (part time or full time).

**Depressive symptoms.** Depressive symptoms were measured using the French version (Arthurs, Steele, Hudson, Baron, & Thombs, 2012) of the Patient Health Questionnaire 9 (Kroenke & Spitzer, 2002). This validated questionnaire presents a list of nine different depressive symptoms. Participants had to indicate on a 4 point Likert scale (0=not at all; 3=nearly every day) how often they were bothered by those symptoms in the last two weeks. A mean score of the nine items was calculated. The scale shows good internal consistency ( $\alpha=.85$ ).

**Anxiety symptoms.** Anxiety symptoms were measured with the French version (Vasiliadis, Chudzinski, Gontijo-Guerra, & Prévile, 2015) of the Generalized Anxiety Disorder Questionnaire 7 (Spitzer, Kroenke, Williams, & Lowe, 2006). This validated questionnaire presents a list of seven different symptoms of anxiety. Participants had to indicate on a 4 point Likert scale (0=not at all; 3=nearly every day), how often they were bothered by those symptoms in the last two weeks. The mean score was calculated. Internal consistency was satisfactory ( $\alpha=.90$ ).

**Strengths use at work.** Strengths use at work was assessed using the French version of the Strengths Use Scale adapted for the work context (Forest et al., 2012). This scale has been used in other studies and displays solid psychometric properties (Dubreuil et al., 2014; Dubreuil et al., 2016). Participants had to indicate on a 7 point Likert scale (1=strongly disagree, 7=strongly agree), their level of agreement with fourteen items related to the use of their strengths at work (e.g. At work, I am regularly able to do what I do best). The mean score was calculated. The scale showed satisfactory internal consistency ( $\alpha=.94$ ).

**Mental health related work functioning.** The French version of the Lam Employment Absence and Productivity Scale was used to assess mental health related work functioning (Lam, Michalak, & Yatham, 2009). This questionnaire has been specifically developed to assess work functioning of workers with mental health disorders such as depression. The 7 item scale asks participants to indicate, on a 5 point Likert scale (0=none of the time; 4=all of the time) how often they have faced various problems with work functioning. These items can be regrouped in a global score of impaired work functioning or in

two subscales. Indeed, in a validation study, a factor analysis has confirmed the presence of two factors: troublesome symptoms (e.g. poor concentration or memory) and productivity<sup>1</sup> (e.g. getting less work done) (Lam, Michalak, & Yatham, 2009). Internal consistency was satisfactory for the global score ( $\alpha=.83$ ) and acceptable for the two subscales ( $\alpha=.79$  and  $\alpha=.69$ ). The mean score for both the global scale and the two subscales was used for the analysis.

#### Data analysis

Statistical analyses were conducted using SPSS v. 22. After descriptive statistics were calculated, correlations were carried out to determine the link between study variables. The moderation effect of strengths use was tested using Hayes' (2013) PROCESS macro (<http://www.processmacro.org/>) for SPSS. This macro uses linear or logistic regression to estimate moderation effects. Each analysis used 5,000 bootstrapping resamples and bias-corrected 95% confidence intervals (CI). When a significant moderation was found, interactions were plotted and regression coefficients for the association between depressive and anxiety symptoms and mental health related work functioning were examined for low (mean - 1 standard deviation) and high (mean + 1 standard deviation) levels of the moderating variable (strengths use).

Since, according to past studies, it is still not clear if strengths use needs to reach a certain threshold in order to influence work performance, analysis was performed with strengths use as a continuous variable and a dichotomous variable (0=low to moderate strengths use; 1= high strengths use). High strengths use was defined as a score higher than the mean score + 1 standard deviation.

#### RESULTS

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A total of 366 participants clicked on the study link and answered the questionnaire. However, after analysing the extent of missing data per participant, the questionnaires of 35 participants who had systematically abandoned the questionnaire before completion and were missing a large amount of data (more than 60% of the questionnaire) were eliminated from analysis. For the remaining 331 participants, the number of missing data per variable was small (from 0% to 6% per variable).

Since these data were also randomly distributed, they were not imputed and listwise deletion was used for main analysis

**Table 1. Descriptive statistics for study variables**

	N (%)
<b>Gender</b>	
Male	58 (17.79 %)
Female	268 (82.21 %)
<b>Country of birth</b>	
Canada	280 (86.15%)
Other	45 (13.85%)
<b>Perceived economic status</b>	
Poor or very poor	85 (26.48%)
Sufficient income or financially comfortable	236 (73.52%)
<b>Marital status</b>	
Single	182 (56.17%)
Married or in a common law partnership	142 (43.83%)
<b>Work schedule</b>	
Full-time	165 (51.24%)
Part-time	157 (48.76%)
	<b>Mean (SD)</b>
<b>Age</b>	33.62 (11.62)
<b>Depressive symptoms (/3)</b>	0.81 (0.60)
<b>Anxiety symptoms (/3)</b>	0.80 (0.72)
<b>Strengths use (/7)</b>	5.37 (1.03)
<b>Impaired work functioning (global score)</b>	
Impaired productivity (/4)	0.42 (0.53)
Troublesome symptoms (/4)	0.97 (0.75)

(Tabachnick & Fidell, 2007). Table 1 presents the characteristics of the sample participants. They were between 18 and 70 years old. Most were female, born in Canada, with a college or university degree and a relatively high perceived economic status. About half were married or in a common law partnership and worked part-time.

Table 1 also presents mean and standard deviations for study variables. Guidelines for the PHQ-9 and GAD-7 (<http://www.phqscreeners.com>) were used to qualify the severity of participants' symptoms. Mean scores for depressive and anxiety symptoms both fall into the mild symptoms severity category. However, it should be noted that about a third of participants (36.97%, n=122) had minimal depressive symptoms, while half were classified as either in the mild (34.55%, n=114) or moderate (15.76%, n=52) depression categories. About 10% were classified in the moderately severe (9.70%, n=32) or severe depression (3.03%, n=10) categories.

As for anxiety, half the participants had minimal symptoms (52.12%, n=172) while about a quarter (28.48%, n=94) had mild symptoms. One tenth had moderate (9.70%, n=32) symptoms and another tenth severe symptoms (9.70%, n=32).

The mean score for strengths use at work was slightly higher than what has been found in other studies using the same scale (Forest et al., 2012; Dubreuil et al., 2014; Dubreuil et al., 2016), while work functioning scores (impaired work functioning, impaired productivity and troublesome symptoms) were lower than those reported in the validation study for this scale (Lam et al., 2009).

Table 2 (see following page) shows correlations between study variables. The female gender and higher economic status were respectively positively and negatively associated with troublesome symptoms. Higher economic status was also negatively associated with the global score of impaired work functioning and the impaired productivity subscale.

These demographic variables were used as covariates in the regression analysis. The results of correlational analysis also indicated that depressive and anxiety symptoms were negatively associated with strengths use and positively associated with the global score and the two subscales of impaired work functioning (impaired productivity and troublesome symptoms). Additionally, strengths use was negatively associated with impaired work functioning as well as with impaired productivity and troublesome symptoms.



**Table 2. Correlations between study variables**

	1	2	3	4	5	6	7	8	9
1. Female gender									
2. Age	-.19**								
3. Higher economic status	.05	.09							
4. Part time workers	.12*	-.44**	-.11*						
5. Depressive symptoms	.12*	-.20**	-.22**	.12*					
6. Anxiety symptoms	.10	-.17**	-.16**	.13*	.72**				
7. Strengths use	-.02	.08	.15*	.03	-.37**	-.26**			
8. Impaired work functioning(global)	.10	-.10	-.16**	.00	.64**	.63**	-.43**		
9. Impaired productivity	.03	-.04	-.16**	-.01	.47**	.46**	-.39**	.83**	
10. Troublesome symptoms	.13*	-.11	-.13*	.01	.64**	.63**	-.39**	.95**	.62**

\*p <.05, \*\*p <.01.

Table 3 presents the results of the moderation analysis investigating the influence of strengths use at work on the association between anxiety and depressive symptoms and impaired work functioning, while controlling for gender and perceived economic status. Results first indicated that gender and perceived economic status were not significantly associated with the global score of impaired work functioning or with impaired productivity and troublesome symptoms, while depressive and anxiety symptoms were positively associated with those dependent variables and strengths use was negatively associated with them. All interaction terms were non-significant.

Another series of analyses was performed to test if high strengths use at work could moderate the association between depressive and anxiety symptoms and impaired work functioning. As was the case for previous analysis, the results presented in Table 4 indicate that depressive and anxiety symptoms were positively associated with the global score of impaired work functioning and its two subscales, namely impaired productivity and troublesome symptoms. Strengths use was also negatively associated with those three dependent variables. However, with high strengths use as a moderator, interaction terms were significant for the global score of impaired work functioning and the impaired productivity subscale. As illustrated in Figure 1, analyses of simple slopes revealed that, for participants who use their strengths considerably at work, the association

between depressive symptoms and impaired productivity was non-significant ( $b=-.04$ ,  $p=.55$ ), while it was significant for participants using their strengths lightly or moderately ( $b=.44$ ,  $p<.01$ ). There was also a significant anxiety symptoms X high strengths use interaction for the global score of impaired work functioning and the subscale impaired productivity (Figures 2 and 3). Similarly, for participants who use their strengths at work a great deal, the association between anxiety symptoms and impaired work functioning ( $b=.19$ ,  $p=.24$ ) and impaired productivity ( $b=-.02$ ,  $p=.76$ ) was non-significant, while it was significant for participants using their strengths lightly or moderately (impaired work functioning:  $.54$ ,  $p<.01$ ; impaired productivity= $.36$ ,  $p<.01$ ). The interaction terms for high strengths use and depressive and anxiety symptoms were non-significant for the dependent variable of troublesome symptoms.

## DISCUSSION

The first aim of this study was to explore the association between strengths use at work and mental health related work functioning. Results of correlational and regression analysis indicate that strengths use at work was negatively associated with the global score of impaired work functioning as well as with the two subscales, namely impaired productivity and troublesome symptoms at work. Previous studies have found that strengths

**Table 3. Moderating effects of strengths use on the association between depressive and anxiety symptoms and work functioning**

	<i>Impaired work functioning (global score)</i>	<i>Impaired productivity</i>	<i>Troublesome symptoms</i>
	<i>b SE LLCI ULCI</i>	<i>b SE LLCI ULCI</i>	<i>b SE LLCI ULCI</i>
<b>Depression</b>			
Constant	.69** .05 .58 .80	.41** .09 .24 .59	1.02** .15 .72 1.31
Female gender			.09 .08 -.06 .25
Higher economic status	.02 .06 -.11 .14	-.02 .04 -.09 .06	-.07 .05 -.17 .03
Depressive symptoms	.52** .06 .41 .63	.30** .05 .20 .40	.70** .08 .54 .85
Strengths use	-.12** .04 -.20 -.05	-.11** .04 -.18 -.04	-.14** .04 -.22 -.06
Depressive symptoms X strengths use	-.04 .06 -.14 .07	-.08 .06 -.20 .03	-.01 .07 -.12 .13
<b>Anxiety</b>			
Constant	.67** .07 .54 .81	.35** .09 .19 .52	.88** .15 .53 1.13
Female gender	.07 .06 -.05 .18		.13 .08 -.02 .29
Higher economic status	-.04 .06 -.17 .09	.01 .04 -.06 .08	-.00 .05 -.11 .11
Anxiety symptoms	.44** .05 .35 .54	.24** .04 .16 .33	.58** .06 .46 .71
Strengths use	-.15** .03 -.22 -.09	-.13** .03 -.19 -.07	-.17** .04 -.25 -.10
Anxiety symptoms X	-.04 .05 -.14 .05	-.09‡ .05 -.19 .00	-.00 .06 -.12 .11

LLCI: lower level of confidence interval; ULCI: upper level of confidence interval.

\*p <.05, \*\*p <.01, ‡p <.06.

use at work was associated with increased work performance (Dubreuil et al., 2014; Lavy & Littman-Ovadia, 2017; Littman-Ovadia et al., 2017). However, in the present study, the focus was on mental health related work functioning rather than on work performance. Mental health related work functioning is different from work performance since it focuses on the effect of an illness on the ability to meet work demands, rather than on positive behaviours that contribute to an organization’s goals. The results of the present study add to current knowledge by indicating that strengths use is not only associated with increased work performance, but it is also linked with decreased productivity problems that could otherwise arise from an illness such as depression or anxiety. This negative association between strengths use at work and impaired productivity could be explained by the fact that strengths use has also been associated with increased self-efficacy (van Woerkom, Oerlemans & Bakker), which in turn is usually positively associated with work-related performance (Stajkovic & Luthans, 1998). Thus, self-efficacy could act as a mediating variable in the association between strengths use at

work and impaired productivity, but this hypothesis remains to be tested empirically in future studies.

Another explanation for these results could be that strengths use at work could reduce the presence of anxiety and depressive symptoms, such as lack of concentration, poor memory or loss of interest while working. Indeed, in accordance with this assumption, the results of the present study indicate that using one’s strengths at work is negatively associated with the presence of troublesome symptoms while working. One explanation for this result could be that using one’s strengths usually induces positive affect (Lavy & Littman-Ovadia, 2017; Littman-Ovadia et al., 2017). Positive affect has previously been identified as a mediator in the association between strengths use at work and various positive outcomes, such as job satisfaction, in role and extra role job performance, engagement, meaning, and reduced counterproductive behavior (Littman-Ovadia et al., 2017). In future studies, it would be interesting to test the mediating effect of positive affect on the association between strengths use at work and troublesome symptoms while working.

**Table 4. Moderating effects of high strengths use on the association between depressive and anxiety symptoms and work functioning**

	<i>Impaired work functioning (global score)</i>	<i>Impaired productivity</i>	<i>Troublesome symptoms</i>
	<i>b SE LLCI ULCI</i>	<i>b SE LLCI ULCI</i>	<i>b SE LLCI ULCI</i>
<b>Depression</b>			
Constant	.68** .05 .57 .79	.43** .09 .24 .61	1.03** .15 .74 1.32
Female gender			.08 .08 -.07 .24
Higher economic status	.02 .07 -.10 .15	-.02 .04 -.10 .06	-.08 .05 -.18 .02
Depressive symptoms	.57** .06 .45 .69	.36** .06 .25 .47	.73** .08 .57 .88
High strengths use (mean +1 SD)	-.30 .10 -.50 -.10	-.24** .06 -.35 -.13	-.37* .16 -.69 -.05]
Depressive symptoms X high strengths use	-.37 .20 -.76 .02	-.48** .10 -.67 -.29	-.30 .33 -.96 .36
<b>Anxiety</b>			
Constant	.67** .07 .53 .81	.39** .09 .21 .57	.85** .15 .56 1.13
Female gender	.07 .06 -.06 .19		.14 .08 -.02 .29
Higher economic status	-.04 .07 -.17 .09	.00 .04 -.08 .08	-.01 .05 -.12 .09
Anxiety symptoms	.48** .05 .38 .58	.30** .05 .20 .40	.61** .06 .48 .74
High strengths use (mean + 1 SD)	-.33** .09 -.57 -.15	-.23** .06 -.34 -.12	-.43** .14 -.70 -.15
Anxiety symptoms X	-.35* .17 -.68 -.02	-.39* .09 -.56 -.21	-.32 .27 -.86 .22

LLCI: lower level of confidence interval; ULCI: upper level of confidence interval.

\* $p < .05$ , \*\* $p < .01$

This study also sought to test the moderating effect of strengths use in the association between depressive and anxiety symptoms and work functioning. It was expected that strengths use at work would reduce the effect of depressive and anxiety symptoms on impaired work functioning. Results indicate that when taken as a continuous score, strengths use at work did not moderate the association between depressive and anxiety symptoms and work functioning. However, when strengths use was dichotomized to distinguish employees who use their strengths considerably from those who do not, significant interactions were found for impaired work functioning and productivity. These results are similar to those of Dubreuil et al., (2016) and indicate that, in order to affect work performance, strengths use has to reach a certain threshold. Thus, to alleviate the negative influence of depressive and anxious symptoms on work functioning, employees need to be able to use their strengths at work regularly. Those results are in line with findings of other studies indicating that positive psychology interventions enhance the reduction in depression and improvement in well-being when

participants invest substantial effort in the activities and practice them over an extended period (e.g., Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2008; Seligman et al., 2005). In the same vein, Sin and Lyubomirsky (2009) suggest that individuals should regularly practice their positive strategies to incorporate them into their everyday lives and turn them into habits.

However, while the results of the present study suggest that workers need to use their strengths often, this does not indicate the specific amount of strengths use needed to moderate the effect of depressive and anxiety symptoms on work functioning. Future studies should employ more precise measures and identify the proportion of time a worker should spend on using their strengths in order to gain benefits. According to Lyubomirsky and Layous (2013), the dosage of positive activity is important to determine, and sometimes fewer activities are more efficient than more (Lyubomirsky, Sheldon, & Schkade, 2005). To avoid an “overdose”, it is necessary to qualify the dosage of strengths use at work that can be beneficial. Future research should also consider



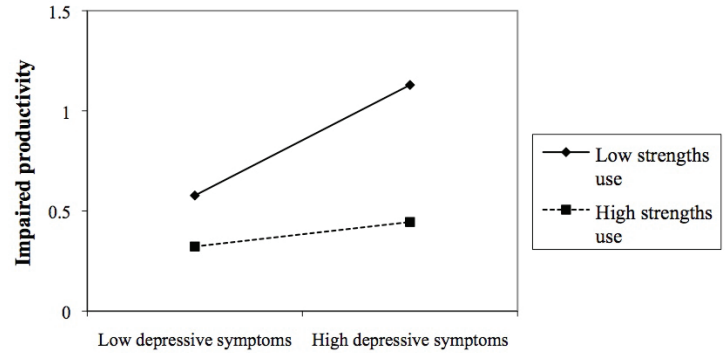
personal factors such as motivation to use one’s strengths and the perceived efficacy of strengths use at work as important interacting variables. Indeed, these two variables have been identified as factors influencing the effectiveness of positive interventions, such as strengths use (Lyubomirsky & Layous, 2013), and could therefore moderate the association between strengths use and mental health related work functioning.

The results of the present study have many practical implications. First, promoting strengths use at work among employees with depressive and anxiety symptoms might increase work functioning. Interventions could be implemented to encourage workers living with these symptoms to identify their strengths and seek opportunities to use them. A short questionnaire, such as the “Values in Action Survey” (Peterson & Seligman, 2004), could be used to help these workers identify their top five strengths. Thereafter, exercises could be designed to help them find tasks or aspects of their work in which their strengths can be called upon. Even though it is not always possible to change the tasks and objectives associated with one’s job, methods and ways of performing them can be tailored to match employees’ strengths. Managers can also greatly contribute to this task by first knowing their employees’ strengths and then, whenever possible, delegating tasks accordingly (Lavy, Littman-Ovadia, & Boiman-Meshita, 2016). Finally, in line with Sin and Lyubomirsky (2009), the present study suggests that positive psychology intervention, such as strengths use at work, could be beneficial for individuals with depression and anxiety. Such interventions could be combined with more traditional strategies for dealing with depressive and anxiety symptoms, such as psychotherapy, medication, and self-management strategies.

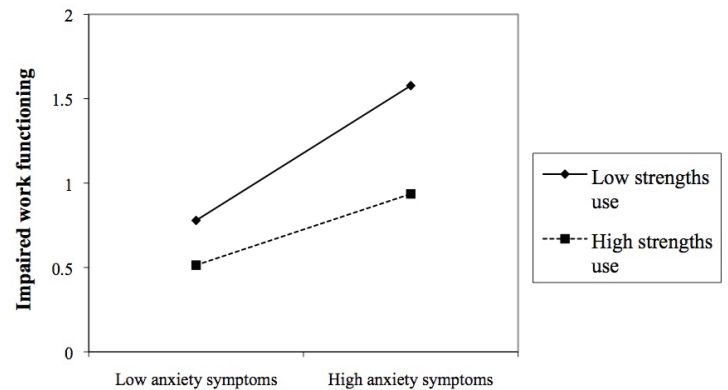
**STUDY LIMITATIONS**

This study has certain limitations that are worth mentioning. First, given its cross-sectional design, it was not possible to conclude in any causal relationships between study variables. Also, it was not possible to explore the direction of the associations between variables, and they may be bidirectional. Future longitudinal research should investigate the association between strengths use at work and mental health related work functioning. Additionally the study sample was rather homogenous, and this should be taken into account before generalizing the results. Indeed, the sample was composed mainly of Canadian women in a favorable economic situation. The proportion of participants with depression and anxiety was also higher than that found in the Canadian workforce. Employees with depression and anxiety were probably more interested in the study topic. There was also a high proportion of part-time employees in our sample. It would be interesting to replicate the present study

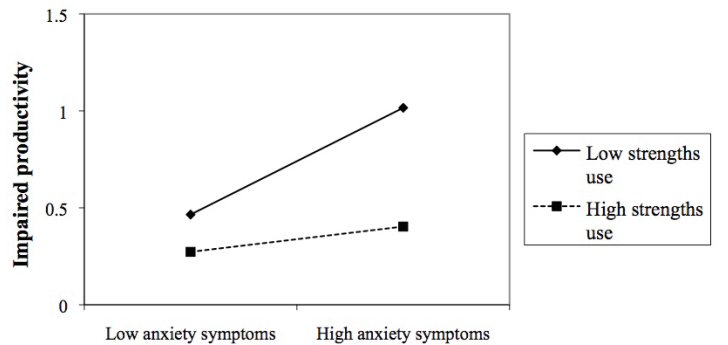
**Figure 1. The moderating effect of high strengths use in the association between depressive symptoms and impaired productivity**



**Figure 2. The moderating effect of high strengths use on the association between anxious symptoms and impaired work functioning**



**Figure 3. The moderating effect of high strengths use on the association between anxious symptoms and impaired productivity**



with a more heterogeneous sample. Finally, some limits of this study are related to the measure of work functioning that was used (LEAPS). Since it was a self-reported questionnaire, answers may have been influenced by social desirability and participants' perception. Also, this questionnaire was developed for a depressed population and may not apply completely to all our participants, who presented a more heterogeneous portrait regarding their depressive and anxious symptoms. Future studies should try to replicate the present results by using a more objective measure of mental health related work functioning such as supervisor or colleague perception of employee work functioning. They could also use a more generic measure of work functioning such as the Work Limitations Questionnaire (Lerner et al., 2001).

## CONCLUSION

This study highlights the positive association between strengths use at work and mental health related work functioning. It also proposes that highly using one's strengths at work could reduce the effect of workers' depressive and anxiety symptoms on work functioning and productivity. By enabling employees to use their strengths at work, the workplace may become a setting where employees with depressive and anxiety symptoms feel more competent, are less bothered by their symptoms, and find resources to recover, rather than challenges to their mental health.

**1** Since higher scores on the "productivity" subscale represent more problems with productivity, this subscale was renamed "impaired productivity".

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