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ABSTRACT

Does Loneliness Lurk in Temp Work? Exploring the Associations between Temporary Employment, Loneliness at Work and Job Satisfaction*

This research contributes to the limited literature concerning the determinants of loneliness at work, as well as to the literature on psychological outcomes associated with temporary work. More specifically, we are adding to the literature by exploring whether there is an association between working temporarily and loneliness at work and whether loneliness at work partly explains the association between working temporarily and job satisfaction. To this end, we analyse – by means of a mediation model – a unique sample of Flemish employees in the private sector. We find that employees with a temporary contract experience more loneliness at work as opposed to employees with a permanent contract. In addition, we discover that loneliness at work mediates the association between working temporarily and job satisfaction.

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1. Introduction

At a societal level, loneliness is a hot topic. Even Ministers of Loneliness are popping up (e.g. Yeginsu, 2018). Loneliness occurs in all walks of life and society is starting to realise that the working population is not an exception (e.g. Goegebeur, 2018). Researchers acknowledge that people can experience loneliness, even when being surrounded by co-workers (Wright et al., 2006).

Despite its societal relevance, researchers who study loneliness in the workplace agree that the topic has received relatively little attention in the scientific literature (e.g. Wright et al., 2006; Lam & Lau, 2012). Particularly concerning the determinants of loneliness at work, researchers have been advised to take a much broader look at determinants of loneliness at work as opposed to only looking at its personal characteristics like extraversion or shyness (e.g. Morrison & Wright, 2009). This plea was made by Sarah Wright—one of the founders of research concerning loneliness at work—about a decade ago. In response to this plea, also social (e.g. Dussault et al., 2017), organisational, and job characteristics (e.g. Zumaeta, 2019) have been investigated as determinants of loneliness at work. However, several determinants of professional loneliness, including many job characteristics, still need to be investigated.

Temporary work—defined as dependent employment of limited duration (OECD, 2002)—is one of the unexplored determinants of loneliness at work related to job characteristics. This implies a substantial gap in the literature for several reasons. First, the share of temporary employees in the EU is on the rise so that monitoring the psychosocial consequences of this evolution is important (Eurostat, 2018). Second, there are indications of feelings of social isolation amongst temporary workers and this concept is closely related to loneliness at work (De Cuyper et al., 2011; Wilkin et al. 2018).[1] Nevertheless, to the best of our knowledge, it has not yet been empirically tested whether temporary workers

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[1] Loneliness and isolation are related—but distinct—concepts. According to Wright et al. (2006), isolation tends to refer to the objective characteristics of a social environment (actual social contact), whereas loneliness is based on an individual's perception. Marshall et al. (2007) distinguish two types of perceived isolation at work: social isolation and organisational isolation. The first encompasses perceived isolation from colleagues, while the latter encompasses perceived isolation from the company's support network. In the present study, we focus on loneliness at work, which is closely related to the perceptions of social isolation.

experience more loneliness at work as opposed to permanent workers. Therefore, our first research question reads as follows: 'Is there an association between working temporarily and loneliness at work?'.

Concerning the association between temporary employment (versus permanent employment) and job satisfaction, research has resulted in inconsistent findings (De Cuyper et al., 2008). To gain a better insight in this complex association, De Cuyper et al. (2008) have invited researchers to investigate its mediators.[2] Loneliness at work is such a possible mediator: on the one hand there is a potential association between working temporarily and loneliness at work (see above), on the other hand there are indications of a negative association between loneliness at work and job satisfaction (e.g. Tabancali, 2016). Therefore, our second research question is: 'Does loneliness at work mediate the association between working temporarily and job satisfaction?'. In other words, we explore whether the association between working temporarily and loneliness at work explains a part of the association between working temporarily and job satisfaction.

2. Data and Method

To answer our research questions, we draw on self-reported information that we obtained from a large-scale survey (N = 1358) among employees in the private sector in Flanders—the northern Dutch speaking part of Belgium—between February and October 2019. We used quota-sampling to achieve similarity of the (univariate) frequency distributions in the Flemish population with respect to (i) working part-time versus full-time, (ii) educational level, (iii) gender and (iv) age.

In the questionnaire, the respondents were asked to indicate their type of contract: temporary (code 1) or permanent (code 0). We also asked the respondents to express their job satisfaction from 0 (not satisfied at all) to 10 (totally satisfied). Also, loneliness at work was measured by means of a short version of the R-UCLA loneliness scale (Russell et al., 1980), which we adapted to the work context. That is, respondents indicated from strongly

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[2] Mediators provide information on how one variable influences another one (Hayes, 2013).

disagree (1) to strongly agree (5) to which extent they agreed with the following four statements: 'I feel in tune with the people around me at work', 'No one at work really knows me well', 'I can find companionship at work when I want it' and 'The people at work are not there for me'. Based on the (standardised) answers to these four items a loneliness factor was created, which ranges from −1.81 to 4.74 (M = 0.00, SD = 1,00).[3]

As depicted in Figure 1, the three variables described above are at the core of our mediation model. We analyse this mediation model following the procedure discussed in Hayes (2013). To find an answer to our first research question, we examine the association between working temporarily and loneliness at work (association *a*). To answer our second research question, we estimate the indirect association between working temporarily and job satisfaction through loneliness at work (association *ab*).

<Figure 1 about here>

Below, we discuss three versions of this mediation model (A, B and C) that differ only in the number of control variables added to the model. A description of all the control variables gathered in the questionnaire can be found in Table 1. Besides the aforementioned three main variables, we also asked respondents about their gender, age, education level and HEXACO personality traits.[4] We add these personal characteristics, which we assume to be predetermined and thereby strictly exogenous, as control variables in model A. Also other socio-demographic information was surveyed in view of this analysis, namely whether respondents are in a relationship, whether they have children and whether they live with someone else (partner, children or others). Together with satisfaction with social life and satisfaction with family life, these socio-demographic characteristics are added as extra control variables assumed to be exogenous in model B. In version C of our model, we also added available job characteristics as control variables, which we assume to be endogenous. More concretely, variables capturing whether the respondents work full-time or part-time, their job tenure and their amount of days working from home were added as extra control

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[3] By means of a principal component analysis. Cronbach's alpha = 0.764.

[4] Honesty-humility (H), emotionality (E), extraversion (X), agreeableness (A), conscientiousness (C), openness to experience (O).

variables in model C.

<Table 1 about here>

3. Results

Panel A of Table 2 shows the results of the mediation analysis for model A, i.e. when controlling for the indisputably exogenous variables only. The significant coefficient for a gives us a clear answer to our first research question: employees with a temporary contract in our sample experience more loneliness at work. The average loneliness at work score amongst temporary workers is 0.31 units (SE = 0.11) higher than amongst permanent workers. This positive association a is in line with our expectations, based on the few, non-empirical indications of social isolation among temporary workers in the literature mentioned above.

We also see in panel A of Table 2 that employees with a temporary contract experience a lower average job satisfaction (c = −0.33, SE = 0.16). To find out whether this association is partly mediated by loneliness at work (our second research question), we first examine association b. The significant coefficient for b shows that an employee that scores one unit higher on the loneliness at work scale is estimated to be 0.42 units (SE = 0.04) lower in job satisfaction compared to another employee with the same type of contract. Multiplying a and b leads to a significantly negatively mediated association ab: temporary employees score 0.13 units (SE = 0.05)[5] lower on the job satisfaction scale as a result of the association between temporary work and loneliness at work, that in turn is associated with lower job satisfaction.[6] So, the total association between working temporarily and job satisfaction (c = −0.33, SE = 0.16), is composed of a (non-significant) direct association (c' = −0.20, SE = 0.15) as well as a significant indirect association (ab = −0.13, SE = 0.05) via loneliness at work. Consequently, we also find a clear answer to our second research question: loneliness at

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[5] Standard errors for ab are based on 10.000 bias-corrected bootstrap samples, as proposed by Hayes (2013).

[6] Rescaling the indirect association ab to the standard deviation of job satisfaction (SD = 1.45), shows that temporary and permanent employees differ by about a tenth of a standard deviation in job satisfaction as a result of the mediation: ab_ps = −0.09 (SE = 0.03) (the abbreviation $\_ps$ stands for partially standardised).

work indeed partly explains the association between working temporarily and job satisfaction in our research sample.

Adding more control variables to the model lowers the size of the coefficients to a small extent, but it does not change the answers to our research questions. As can be seen in panel B and C of Table 2, when adding the aforementioned control variables assumed to be exogenous (a = 0.28, SE = 0.11) as well as when adding the presumably endogenous job characteristics (a = 0.26, SE = 0.11), the conclusion that employees with a temporary contract experience more loneliness at work remains valid. What the indirect association is concerned, the model extended with the most likely exogenous control variables (ab = −0.11, SE = 0.04) as well as the most extended model (ab = −0.10, SE = 0.04), also confirm that loneliness at work mediates the association between working temporarily and job satisfaction.

<center><Table 2 about here></center>

4. Conclusion

To summarise, this research contributed to the limited literature concerning the determinants of loneliness at work, which is a widespread, topical phenomenon. In addition, we made a contribution to the literature on psychological outcomes associated with temporary work. More concretely, to the best of our knowledge, we were the first to empirically conclude that temporary employees experience more loneliness at work as opposed to permanent employees. Moreover, we shed light on the complex association between working temporarily and job satisfaction by concluding that loneliness at work mediates this association. We were able to do so by analysing—by means of a mediation model—a quota sample of Flemish employees in the private sector. The answers to our research questions were robust to controlling for various sets of relevant control variables.

We end this letter by acknowledging some limitations of this exploratory research and formulating related directions for future research. First, we did not take into account the

heterogeneity amongst temporary contracts,[7] although it has been mentioned as one of the explanations for the inconsistent research results on temporary employment (De Cuyper et al., 2008). Follow-up research should refine our explanatory results by discovering whether the current research results are valid for different types of temporary contracts. Second, our data did not allow causal inference of the associations in our mediation model. Despite the fact that the answers to our research questions stood their ground when taking into account an extended list of control variables, it is still possible that non-observed, confounding variables exist. To rule this out, exogenous variation in (instruments of) both temporary employment and loneliness at work is needed. Since this will be very hard to accomplish simultaneously, we are in favour of follow-up research that focusses on the investigation of the causal relationships of our mediation model one by one.

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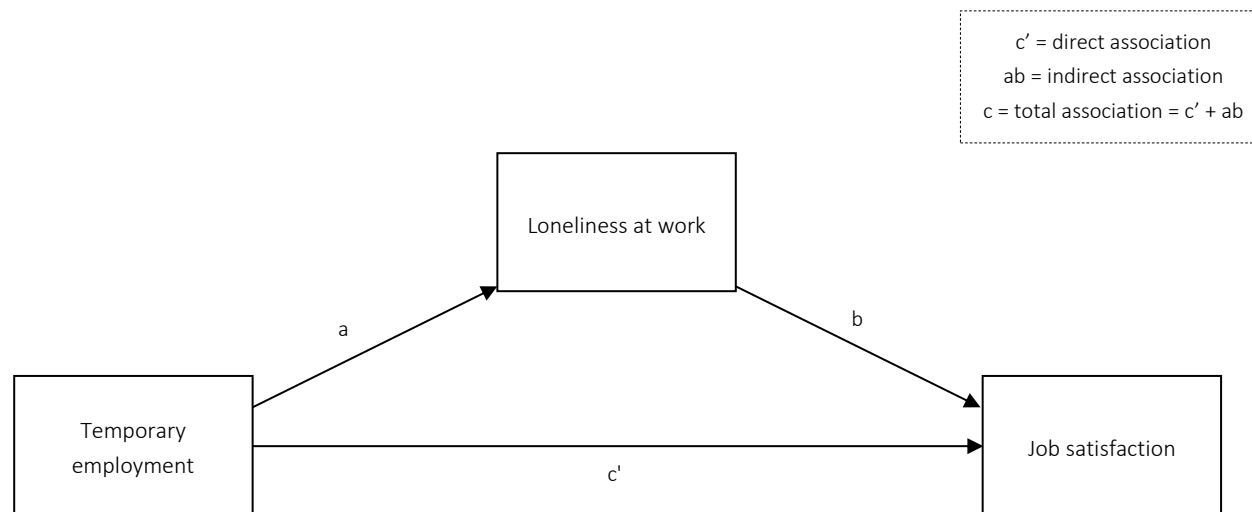
Figure 1. Mediation model

c' = direct association
ab = indirect association
c = total association = c' + ab

Loneliness at work

a

b

Temporary employment

c'

Job satisfaction

Table 1. Variable specification of the control variables

Variable	Description
A. Indisputably exogenous control variables	
Male gender	1 if the employee is male, 0 otherwise.
Age	Age of the employee.
Highest education level	Three dummy variables: lower secondary education, bachelor and master.
Personality traits	Six scale variables: honesty-humility, emotionality, extraversion, agreeableness, conscientiousness, openness to experience (7-point semantic differential scale: opposite personality traits at each end of the scale).
B. Presumably exogenous control variables	
Relationship	1 if the employee is in a relationship, 0 otherwise.
Children	1 if the employee has at least one child, 0 otherwise.
Living together	1 if the employee lives together with at least one other person, 0 otherwise.
Good social life	Score from 0 (totally do not agree) to 10 (totally agree).
Good family life	Score from 0 (totally do not agree) to 10 (totally agree).
C. Presumably endogenous control variables	
Full-time or part-time	1 if the employee works full-time, 0 otherwise.
Seniority	Amount of time in the current job (in the same organisation).
Homeworking	Amount of days working from home.

Table 2. Results of the mediation analysis

	a		c		b		ab		c'	
Model A: Indisputably exogenous control variables	0.31***	(0.11)	−0.33**	(0.16)	−0.42***	(0.04)	−0.13***	(0.05)	−0.20	(0.15)
Model B: Indisputably exogenous control variables + presumably exogenous control variables	0.28***	(0.11)	−0.26*	(0.16)	−0.39***	(0.04)	−0.11***	(0.04)	−0.15	(0.15)
Model C: Indisputably exogenous control variables + presumably exogenous control variables + presumably endogenous control variables	0.26**	(0.11)	−0.21	(0.16)	−0.39***	(0.04)	−0.10**	(0.04)	−0.11	(0.15)

Notes. The presented results are non-standardised estimation coefficients following the PROCESS procedure as described in Hayes (2013). Standard errors are between parentheses. As proposed by Hayes (2013), standard errors for ab are based on 10.000 bias-corrected bootstrap samples; standard errors for a, c, b and c' are based on the normal theory approach. *** (**) ((*)) indicate significance at the 1% (5%) ((10%)) significance level.