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A new inventory for assessing worry in managers: Correlates with job involvement and self-reliance

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Abstract

This work introduces the “Worry Inventory for Managers” (WIM), a 24-item measure of job-related worries in managers. A sample of 138 managers responded to the WIM and to measures of pathological worry, job involvement, and self-reliance. Factor analysis of the WIM revealed two facets of job-related worry, namely worry about (a) organizational processes and about (b) work overload. Results indicate that job-related worry shows differential correlations from pathological worry with the three factors of self-reliance (counterdependence, overdependence, and interdependence).

Keywords: anxiety, occupational stress, managers, self-reliance, job involvement

Introduction

From traditional management functions (e.g., planning, decision-making) to human resource management (e.g. conflict management, personnel development), most of the activities of managers provide a continuous source for stress and anxiety. Managers have to make plans, the consequences of which cannot be fully recognized. Moreover, they have to set these plans into action with the help of others who can only partly be controlled and influenced by management (Schirmer, 1991). Apart from this, managers often have to tackle their own imperfections, insecurities, and dependencies. With such a wide range of potentially problematic and stressful issues, managers have plenty to worry about.

In the last years, worry has received increasing attention in various fields of psychology (see Davey & Tallis, 1994). In research on management stress, however, the assessment and investigation of worry has not yet received any consideration. Therefore, the aim of the present study was (a) to develop a short and reliable measure for job-related worry in managers and (b) to explore two work-related individual differences that may constitute potential correlates of worry in managers: job involvement and self-reliance.

Job involvement

As no study has so far investigated the relationship between job involvement and worry in managers, we reviewed the literature on job involvement and job-related anxiety. This, however, re-

vealed an ambiguous picture with some studies reporting positive correlations, others reporting negative correlations. Job involvement might represent a “risk factor” for job-related worry because individuals who highly identify with their job might worry more about work related problems. Therefore, we expected a positive relationship with job-related worry.

Self-reliance

Investigating adult attachment at work, Joplin, Quick, Nelson and Turner (1995) assumed three styles of self-reliance: Counterdependence (inappropriately distant relationships with others) and overdependence (inappropriately close relationships with others) both express lack of self-reliance, whereas interdependence expresses secure, self-reliant attachments. In a study with students, Quick, Joplin, Nelson, and Quick (1992) showed that counterdependence correlated substantially with self-reported anxiety and insomnia, both of which closely relate to pathological worry (Borkovec, Robinson, Pruzinsky & DePree, 1983). The relation between job-related worry in managers and the three styles of self-reliance, however, is still an open question.

Method

Measures

Worry Inventory for Managers (WIM). To obtain an initial item pool of worries of managers, we inspected measures used in previous research on job stress, burnout, and work environment perceptions (Cooper & Baglioni, 1988; Hodapp, Neuser & Weyer, 1988; Jones & James, 1979; Kahn & Cooper, 1992; Turnage & Spielberger, 1991). From this, 100 items qualified to potentially represent managerial worries. These items covered the following eight domains: (I) Control, Support, and Feedback, (II) Power and Influence, (III) Changes and New Developments, (IV) Conflict, Competition, and Career, (V) Leadership Role and Responsibilities, (VI) Work Processes and Deadline Pressure, (VII) Personal Relationships and Leisure Time, and (VIII) Health and Physical Strain. Deletion of redundant items retained six items for each domain. The remaining 48 items were rated by 16 experts (executive managers, management trainers/consultants, organizational psychologists, and economists) with respect to relevance for the field of management, on a five-point scale ranging from “Not relevant” (0) to “Exceedingly relevant” (4). Thereafter, we selected from each domain the three items with the highest ratings. The thus selected 24 items had mean relevance ratings between 2.00 (“Rather relevant”) and 3.19 (above “Very relevant”). The 24 items were placed in random order. Ss were instructed to rate the intensity of each worry using a five-point rating scale from “Not at all” (0) to “Extremely” (4).*

Penn State Worry Questionnaire (PSWQ). The PSWQ (Meyer, Miller, Metzger & Borkovec, 1990) is a 16-item measure of pathological worry. The German version (Stöber, 1995) has a Cronbach’s alpha of .85.

Job Involvement Scale (JIS). The JIS (Moser & Schuler, 1993) is a 7-item measure of a person’s psychological involvement in his or her work. The authors report a Cronbach’s alpha of .68.

Self-Reliance Inventory (SRI). The SRI (Quick *et al.*, 1992) is a 20-item measure of lack of self-reliance in private and work relationships. Cronbach’s alphas for the three SRI subscales (counterdependence, overdependence, interdependence) range between .50 and .70. For the present study, we provided a first German translation.

* Inventory and extended research report can be obtained upon request from the first author.

Participants

Questionnaires were sent to 700 managers listed in the “marken handbuch” (Team-Fachverlag, 1994). A covering letter explained that the study’s purpose was to examine the relationship between worry and “features of personal working-style.” 141 questionnaires (20.1%) were returned of which three contained substantial missing values. Of the remaining 138 participants, 50 were female (6 without gender-response). Mean age was 41.8 yr ($SD = 9.1$). Regarding position, 38 participants described themselves as belonging to top management, 30 to middle management, and 58 to lower management.

Results

The Worry Inventory for Managers (WIM)

With a Cronbach’s alpha of .91, the WIM total score displayed reliability above the .80 value recommended for widely used scales (Carmines & Zeller, 1979). With corrected item-total correlations greater than .36, all items were retained. For our sample, the mean of the WIM was $M = 33.50$ ($SD = 15.11$). WIM scores did not deviate significantly from normal distribution (Kolmogorov-Smirnov, $p = .79$). Moreover, they showed insignificant relations with gender ($t[130] = 0.25$, $p = .81$) and age ($r = -.12$, $p = .18$).

Principal component analysis resulted in five eigenvalues greater than 1. Cattell’s scree test clearly suggested a two-factor solution, explaining 43.7% of the variance. After varimax rotation, Factor I covered items from domains I to V (e.g., “my performance is not appreciated,” “important information gets to me too late”); Factor 2 covered items from domains VI to VIII (e.g., “unforeseen requests take up all my time,” “I don’t have enough time for my friends”). Thus, Factor I was labeled worry about “Organizational Processes” and Factor 2 worry about “Work Overload.”

WIM total scores correlated substantially with PSWQ scores (see Table 1). A correlation of .50 may seem rather low as evidence for convergent validity. However, taking the differences between the two questionnaires into account—the PSWQ is a general measure of pathological worry, the WIM a management-specific measure of nonpathological worry—validity is acceptable. Inspecting the WIM factor scores, PSWQ correlated more highly with worry about Work Overload than with Organizational Processes, indicating that the former may represent more dysfunctional job-related worries. However, both factor scores correlated significantly with the PSWQ. Therefore, it seems best to view the factors as facets of one construct than as independent constructs.

Worry in managers, job involvement, and self-reliance

Job involvement. Contrary to our expectations, job involvement did not show a positive correlation with worry. There was even a significant negative correlation ($r = -.18$) with worry about Organizational Processes. However, since this correlation was small and its direction unpredicted, this result should not be overrated. A high psychological identification with one’s work does not seem to be substantially related to job-related worry in managers.

Self-reliance. Item responses of our SRI translation were subjected to principal component analysis. Scree test retained three factors. After varimax rotation, these factors showed close correspondence with the factors counterdependence, overdependence, and interdependence of previous SRI analyses. The respective subscales, however, again showed low Cronbach’s alphas. Moreover, they were substantially correlated. Therefore, analyses were performed with factor

scores to increase reliability and interpretability (Morris & Guertin, 1977). Table 1 displays the correlations. In line with Quick *et al.*'s (1992) findings regarding anxiety and insomnia, counterdependence was related only to pathological worry (PSWQ). In contrast, overdependence was related to both pathological worry and job-related worry, but more so to the latter. Looking at the two WIM facets, worry about Organizational Processes related mostly to overdependence, whereas worry about Work Overload related mostly to low interdependence. These findings indicate that insecure attachment styles at work related differentially to managers worrying: Counterdependence did not relate to job-related worry in managers, but only to dysfunctional worry in general. Overdependence and low interdependence, however, may present factors that influence the degree and content of worry that managers experience on their job.

Conclusions

As to the potential for the concept of worry in management research, the current study is only a starting point. Still, we believe that the WIM represents a valuable addition to the existing instruments in the domain of management assessment (Sarges, 1995). First, the WIM can be used as a means of pointing out problems that are appraised as worrisome by the managers of an organization. In this respect, job-related worry might constitute an important indicator variable for disturbances in psychological climate. Second, the WIM could be used to serve as an instrument to measure change resulting from individual or organizational initiatives (e.g., job stress interventions). Whether worry in managers is related more to organizational characteristics or more to personality characteristics is still to be disputed. The WIM, however, may provide researchers with a means of tackling these questions.

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Table 1

Correlations of Managers' Worry with Job Involvement and Self-Reliance

	PSWQ	WIM total score	WIM-F1 Organizational Processes	WIM-F2 Work Overload
PSWQ	—	.50***	.29***	.42***
JIS	-.02	-.05	-.18+	.11
SRI-F1 "Counterdependence"	.36***	.06	-.01	.11
SRI-F2 "Overdependence"	.24**	.35***	.35***	.14
SRI-F3 "Interdependence"	-.10	-.27**	-.15*	-.24**

Note. $N = 138$. PSWQ = Penn State Worry Questionnaire. WIM = Worry Inventory for Managers; WIM-F1, WIM-F2 = factor scores for Factors 1 and 2, respectively. JIS = Job Involvement Scale; SRI = Self-Reliance Inventory; SRI-F1, SRI-F2, and SRI-F3 = factor scores for Factors 1, 2, and 3, respectively.

+ $p < .05$, two-tailed test; * $p < .05$, ** $p < .01$, *** $p < .001$, one-tailed tests.