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Most people do not attribute their burnout symptoms to work

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ABSTRACT

A prevailing belief among researchers is that burnout is a work-specific syndrome induced by intractable job stress. The validity of this belief, however, remains unclear. This cross-sectional study compared burnout with two general conditions, nonspecific psychological distress (NSPD) and exhaustion, in terms of (a) causal attributions to work and (b) associations with 11 job variables (e.g., job satisfaction). The study involved 813 individuals employed in Norway (70.5 % female). Burnout was assessed with the Burnout Assessment Tool; NSPD, with the K6; and exhaustion, with the Karolinska Exhaustion Disorder Scale. Results showed that only 27.7 % of participants with burnout symptoms attributed these symptoms to work. The proportions of individuals ascribing their symptoms to work were similar for NSPD (26.9 %) and exhaustion (27.5 %). The higher one's burnout score, the higher the likelihood of attributing one's burnout, NSPD, and exhaustion symptoms to work. Overall, burnout shared more variance with job variables than did NSPD and exhaustion. Coworker support, job security, and job autonomy constituted notable exceptions. In multiple regression analyses, seven of the 11 job variables predicted NSPD; five predicted burnout and exhaustion. An a posteriori analysis of a nationally balanced quota sample of 591 U.S. employees (48.2 % female) replicated our main finding—only 35.9 % of participants attributed their burnout symptoms to work. This study invites stakeholders to exercise more caution when making etiological inferences about burnout. Assuming that symptoms experienced at work are necessarily caused by work may hinder our ability to mitigate these symptoms. Our findings further question work-centric views of burnout.

1. Introduction

The idea that burnout is a work-specific syndrome induced by intractable job stress has been a bedrock belief among burnout researchers. In her earliest paper on burnout, Maslach [26] already regarded unresolvable job stress as the root cause of the syndrome. This belief has influenced burnout research to this day. According to Maslach et al. [29], burnout reflects "a crisis in one's relationship with work" (p. 20). Maslach et al. [30] wrote that "burnout is a problem that is specific to the work context" (p. 404). Maslach [27] described burnout as a "response to stressors in the workplace" (p. 189). Shirom [38] indicated that "burnout is distinct in that it is dependent on the quality of the social environment at work" (p. 266). Leiter et al. [23] regarded burnout as "a major career crisis" and "a fundamental challenge of working life" (p. 1). Maslach and Leiter [28] claimed that "job variables and the organisational context are the prime predictors of burnout" (p. 355). Demerouti et al. [9] stressed the importance of "understand[ing] burnout as an occupational syndrome … caused by work" (p. 688). Guseva Canu et al. [14] highlighted a definitional consensus that burnout is "due to prolonged exposure to work-related problems" (p. 95). These views have been endorsed by the World Health Organization [41], which currently defines burnout as an "occupational

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phenomenon" and a syndrome "resulting from chronic workplace stress." The "job-relatedness" of burnout has been considered key to the construct's distinctiveness and practical utility. Many authors have signaled that, deprived of its occupational anchorage, the burnout construct may lack added value vis-à-vis constructs such as non-specific psychological distress (NSPD), exhaustion, or depression (e.g., [21,33,38]).

While most investigators have been operating under the assumption that burnout is caused by work, research advances have shed new light on burnout's etiology. Recent meta-analyses of longitudinal studies have found that the influence of job stressors on burnout is modest and weaker than the influence of burnout on job stressors [15,24]. Guthier et al. [15] observed that the effect of job stressors on burnout is not only weak but likely overestimated (e.g., due to a small sample bias and likely HARKing—Hypothesizing After the Results are Known). Other studies have questioned the "job-relatedness" of burnout. For example, in a Swiss study involving 468 employed individuals, Bianchi and Brisson [2] found that most participants with burnout symptoms did *not* consider their work to be the main cause of these symptoms. Consistent with these quantitative findings, a qualitative study conducted in South Africa documented the common coexistence of difficulties at work and outside of work in people with burnout symptoms [12]. Hakanen and Bakker [17] called into question the type of ill-being and suffering captured by burnout measures.

The present study reexamined the extent to which burnout can be regarded as a job-related condition. To address this issue, we compared burnout with two general (i.e., work-unspecific) conditions, NSPD and exhaustion [1,10,20,25]. First, we investigated the degree to which affected individuals causally attribute burnout, NSPD, and exhaustion symptoms to work. Second, we scrutinized the associations of burnout, NSPD, and exhaustion with an array of job variables tied to mental health at work [40]. These variables included interferences between occupational life and personal life (work-to-nonwork conflict and nonwork-to-work conflict), work-related support (supervisor support and coworker support), job security, job autonomy, meaningful work, and four forms of occupational satisfaction—job satisfaction, wage satisfaction, benefits satisfaction, and advancement satisfaction. Clarifying the issue of burnout's job-relatedness is important for at least two reasons. One is conceptual and the other is practical. On a conceptual level, the etiological link of burnout to work is key to the construct's distinctiveness. On a practical level, knowledge about burnout's job-relatedness is critical to effective prevention and intervention strategies. Concentrating prevention and intervention resources on the occupational sphere makes little sense if burnout cannot be confidently considered a job-related problem.

Based on the dominant view that burnout is a work-specific syndrome induced by intractable job stress, we formulated and tested the following hypotheses.

Hypothesis 1. Most individuals with burnout symptoms ascribe these symptoms to work.

Hypothesis 2. Individuals ascribe burnout symptoms to work to a substantially greater extent than they ascribe NSPD and exhaustion symptoms to work.

Hypothesis 3. Job variables are more closely related to burnout than to NSPD and exhaustion.

2. Methods

2.1. Study sample and recruitment procedure

The study was conducted in Norway during the winter of 2024. The sample was recruited through contacts with local organizations and advertisements on social media (e.g., Facebook, LinkedIn). The only eligibility criteria for taking part in the study were to be (a) currently employed and (b) at least 18 years old. Our survey included an item designed to assess whether the respondent is paying attention: "For this question, please select the 'somewhat agree' option to show us that you are paying attention." Participants who failed to select the specified response option were considered careless and eliminated. Of the 917 respondents who initially completed the survey, 104 (11.3 %) were identified as inattentive and excluded, leaving a total of 813 participants (Table 1). Of these 813 participants, 38.5 % ($n = 313$) were aged 18–34, 18.0 % ($n = 146$) were aged 35–49, and 42.7 % ($n = 347$) were aged 50+. The remaining participants ($n = 7$) chose not to respond. Of the 813 participants, 70.5 % ($n = 573$) were female and 28.7 % ($n = 233$) were male. Seven participants did not respond. About 72.7 % of participants were working full-time ($n = 591$), consistent with the fact that approximately three-quarters of the Norwegian workforce is employed full-time [39].

The study was conducted in accordance with the guidelines of Sikt—the Norwegian Agency for Shared Services in Education and Research. Participation in the survey was voluntary. Informed consent to participate was provided by participants. Consent was described in writing. The survey took about 10 min to complete. Participants could stop completing the survey at any moment and for any reason, leading to a cancellation of their enrollment in the study. Confidentiality was guaranteed to all participants.

2.2. Measures of interest

Burnout was assessed with the 12-item, work-related version of the Burnout Assessment Tool (BAT; [36]). Items were rated from 1 (never) to 5 (always). The BAT's items and instructions to respondents explicitly contextualize burnout symptoms within the work domain. We used the guidelines for participants found in the manual of the instrument: "The following statements are related to your work situation and how you experience this situation. Please state how often each statement applies to you" [35]. The BAT was placed at the beginning of the survey, right after the introductory section of the study. The items of the BAT are meant to cover symptoms of exhaustion, mental distance, and cognitive and emotional impairment. Sample items are: "After a day at work, I find it hard to recover my energy"; "I struggle to find any enthusiasm for my work"; "At work, I have trouble staying focused"; "At work, I may overreact unintentionally." The BAT has recently been validated in Norway [7]. In our study, Cronbach's α was 0.831 and McDonald's ω was 0.825.

NSPD was assessed using the K6 developed by Kessler et al. [20]. Items were rated from 0 (none of the time) to 3 (most of the time). The K6 comprises six items. Sample items are: "During the last 30 days, about how often did you feel that everything was an effort?"; "During

Table 1
Characteristics of the Norwegian sample.

	Count	%
Sex		
Male	233	28.7
Female	573	70.5
Missing	7	0.9
Age		
18–34	313	38.5
35–49	146	18.0
50+	347	42.7
Missing	7	0.9
Employment		
Full-time	591	72.7
Part-time	222	27.3
Missing	0	0.0

Cumulative percentages may not be strictly equal to 100 due to rounding.

the last 30 days, about how often did you feel worthless?" Neither the items nor the instructions to respondents of the K6 mention work. Cronbach's α and McDonald's ω each reached 0.862.

The Karolinska Exhaustion Disorder Scale (KEDS) was employed to assess exhaustion [1]. The KEDS consists of 9 items rated on a 7-point severity scale. The instrument covers the past two weeks. The KEDS provides respondents with symptom descriptions to facilitate responding. Here is an example of an item dealing with memory: "We ask that you describe your ability to remember things, considering whether you had difficulty recalling names, dates, or tasks you planned to do during a regular day." The items and respondent instructions of the KEDS do not reference work. Cronbach's α was 0.865; McDonald's ω was 0.869.

For the purposes of the present study, the K6 and the KEDS were translated from English into Norwegian using OpenAI ChatGPT-4 and then reviewed for accuracy and idiomaticity by a research group of 11 native Norwegian speakers fluent in English. No problematic discrepancies were identified between the English and Norwegian versions of the instruments.

In our survey, the BAT, the K6, and the KEDS were each followed by the same causal attribution item: "If you experienced any of the abovementioned problems, do you consider your job to be the main cause of these problems?" The response options were "yes," "undecided," "no," and "I did not experience these problems." A similar item was employed by Bianchi and Brisson [2].

Work-to-nonwork conflict, nonwork-to-work conflict, supervisor support, coworker support, job security, job autonomy, meaningful work, job satisfaction, wage satisfaction, benefits satisfaction, and advancement satisfaction were each assessed with single-item, polytomous measures extracted from the National Institute for Occupational Safety and Health Worker Well-Being Questionnaire (NIOSH WellBQ; [5]). The NIOSH WellBQ was designed to cover worker health in an integrated and holistic manner. The items assessing supervisor support, coworker support, benefits satisfaction, and advancement satisfaction included a "does not apply" option because such variables may not be relevant to all jobs. Descriptive statistics for our measures of interest are available in Table 2. Factor analyses and network analyses of the BAT, the K6, and the KEDS are provided in Supplemental Material—Supplemental Table 1 and Supplemental Figs. 1 to 3.

2.3. Data analysis

First, we looked into causal attributions to work using frequency analysis. We ascertained how often our participants attributed burnout, NSPD, and exhaustion symptoms to work. Second, we investigated the links between causal attributions to work and our three conditions of interest—burnout, NSPD, and exhaustion—with Pearson's correlational analysis and the chi-square test (using Cramer's V as an effect size indicator). For the sake of this analysis, the response options attached to causal attributions to work were recoded numerically—2 for "yes," 1 for "undecided," and 0 for "no." Third, we inquired into the association of burnout, NSPD, and exhaustion with our 11 job variables based on (a) Pearson's correlational analysis and (b) multiple regression analysis. Multiple regression analysis allowed us to estimate the proportion of variance that all 11 job variables shared with burnout, NSPD, and exhaustion. These analyses were conducted in IBM SPSS version 28.

3. Results

3.1. Causal attributions to work

Results pertaining to causal attributions to work are presented in Tables 3 and 4. Of the participants with burnout symptoms, 27.7 % did attribute these symptoms to their job whereas 45.9 % did not. The higher one's burnout score, the higher the likelihood of attributing one's burnout ($r = 0.364$), NSPD ($r = 0.328$), and exhaustion ($r = 0.323$) symptoms to work, all $ps < 0.001$. Of the participants with NSPD symptoms, 26.9 % did attribute these symptoms to their job whereas 49.3 % did not. The higher one's NSPD score, the higher the likelihood of attributing one's burnout ($r = 0.164$), NSPD ($r = 0.183$), and exhaustion ($r = 0.150$) symptoms to work, all $ps < 0.001$. Of the participants with exhaustion symptoms, 27.5 % did attribute these symptoms to their job whereas 42.5 % did not. The higher one's exhaustion score, the higher the likelihood of attributing one's burnout ($r = 220$), NSPD ($r = 0.212$), and exhaustion ($r = 0.224$) symptoms to work, all $ps < 0.001$.

The chi-square test indicated that causal attributions to work were independent of the condition of interest (burnout, NSPD, and exhaustion), χ^2 (4) = 8.736, $p = .068$, Cramer's $V = 0.048$. We note that, while the p-value could be regarded as marginally significant, the magnitude of Cramer's V indicates a "negligible association" ([31], p. 219). Causal attributions to work were closely linked to each other across the three conditions: Participants who were more likely to ascribe their burnout symptoms to work were also more likely to ascribe their NSPD and exhaustion symptoms to work.

Burnout, NSPD, and exhaustion correlated highly with each other (Table 4). When corrected for attenuation, the correlations ranged from 0.763 for NSPD and exhaustion to 0.810 for exhaustion and burnout.

Separate results for part-time and full-time employees are available in Supplemental Tables 2 and 3. Among full-time employees, the percentages of causal attributions to work were 30.8, 30.9, and 32.6 for burnout, NSPD, and exhaustion, respectively. The higher one's burnout score, the higher the likelihood of attributing one's burnout ($r = 0.378$), NSPD ($r = 0.366$), and exhaustion ($r = 0.358$) symptoms to work, all ps

Table 2.
Descriptive statistics.

	Count	Minimum	Maximum	*M*	*SD*	Skewness (*SE*)	Kurtosis (*SE*)
Burnout	813	1	4.083	2.118	0.465	0.547 (0.086)	0.667 (0.171)
Nonspecific psychological distress	813	0	3.000	0.967	0.639	0.499 (0.086)	−0.312 (0.171)
Exhaustion	813	0	4.889	1.682	0.948	0.630 (0.086)	−0.041 (0.171)
Work-to-nonwork conflict	813	1	7	3.599	1.335	−0.148 (0.086)	−0.624 (0.171)
Nonwork-to-work conflict	813	1	6	2.908	1.149	0.205 (0.086)	−0.602 (0.171)
Supervisor support	797	0	3	2.355	0.848	−1.195 (0.087)	0.612 (0.173)
Coworker support	801	0	3	2.607	0.603	−1.340 (0.086)	1.062 (0.173)
Job security	813	0	3	2.454	0.768	−1.322 (0.086)	1.094 (0.171)
Job autonomy	813	0	3	2.118	0.884	−0.640 (0.086)	−0.538 (0.171)
Meaningful work	813	0	3	2.438	0.758	−1.398 (0.086)	1.713 (0.171)
Job satisfaction	813	0	3	2.525	0.652	−1.205 (0.086)	0.952 (0.171)
Wage satisfaction	813	0	3	1.841	0.838	−0.424 (0.086)	−0.317 (0.171)
Benefits satisfaction	772	0	3	1.929	0.848	−0.464 (0.088)	−0.379 (0.176)
Advancement satisfaction	629	0	3	1.650	0.866	−0.145 (0.097)	−0.641 (0.195)
N (listwise)	614						

Whenever relevant, we relied on mean scores instead of sum scores because mean scores preserve the original scale's range, making interpretation straightforward. *M*: Mean; *SD*: Standard Deviation; *SE*: Standard Error.

Table 3.
Causal attributions to work in our Norwegian sample.

	Burnout			Non-specific psychological distress			Exhaustion		
Response	Frequency	%	Valid %	Frequency	%	Valid %	Frequency	%	Valid %
Yes	190	23.4	27.7	179	22.0	26.9	195	24.0	27.5
Undecided	181	22.3	26.4	158	19.4	23.8	213	26.2	30.0
No	315	38.8	45.9	328	40.3	49.3	301	37.0	42.5
Excluded (no symptoms)	127	15.6	100.0	148	18.2	100.0	104	12.8	100.0
Total	813	100.0	–	813	100.0	–	813	100.0	–

Cumulative percentages may not be strictly equal to 100 due to rounding. Causal attributions targeting burnout were independent of participants' sex, χ^2 (2) = 0.770, p = .681, Cramer's V = 0.034; the same applied to causal attributions targeting non-specific psychological distress, χ^2 (2) = 1.864, p = .394, Cramer's V = 0.053, and causal attributions targeting exhaustion, χ^2 (2) = 4.297, p = .117, Cramer's V = 0.078. Causal attributions targeting burnout were independent of participants' age, χ^2 (4) = 5.221, p = .265, Cramer's V = 0.062; the same applied to causal attributions targeting non-specific psychological distress, χ^2 (4) = 8.330, p = .080, Cramer's V = 0.079, but not to causal attributions targeting exhaustion, χ^2 (4) = 9.653, p = .047, Cramer's V = 0.083 (the youngest participants less frequently attributed their exhaustion symptoms to work compared to their older counterparts).

Table 4.
Correlations among burnout, non-specific psychological distress (NSPD), exhaustion, and causal attributions to work.

			2.	3.	4.	5.	6.
1.	Burnout	*r*	0.661	0.687	0.364	0.328	0.323
		Count	813	813	686	665	709
		Lower 95 % CI	0.621	0.649	0.297	0.258	0.256
		Upper 95 % CI	0.698	0.722	0.427	0.394	0.388
2.	NSPD	*r*	–	0.659	0.164	0.183	0.150
		Count	–	813	686	665	709
		Lower 95 % CI	–	0.619	0.091	0.108	0.077
		Upper 95 % CI	–	0.696	0.236	0.255	0.221
3.	Exhaustion	*r*		–	0.220	0.212	0.224
		Count		–	686	665	709
		Lower 95 % CI		–	0.147	0.139	0.153
		Upper 95 % CI		–	0.290	0.284	0.293
4.	Causal attributions of burnout to work*	*r*			–	0.533	0.538
		Count			–	608	638
		Lower 95 % CI			–	0.473	0.480
		Upper 95 % CI			–	0.588	0.591
5.	Causal attributions of NSPD to work*	*r*				–	0.635
		Count				–	637
		Lower 95 % CI				–	0.586
		Upper 95 % CI				–	0.679
6.	Causal attributions of exhaustion to work*	*r*					–
		Count					–
		Lower 95 % CI					–
		Upper 95 % CI					–

*: responses were coded 2 for *yes*, 1 for *undecided*, and 0 for *no*. All correlations are statistically significant at $p < .001$.

< 0.001. Among part-time employees, the percentages of causal attributions to work were 18.9, 16.8, and 14.2 for burnout, NSPD, and exhaustion, respectively. The higher one's burnout score, the higher the likelihood of attributing one's burnout (r = 0.356), NSPD (r = 0.236), and exhaustion (r = 0.259) symptoms to work, all $ps < 0.001$.

3.2. Associations with job variables

Of our three conditions of interest (burnout, NSPD, and exhaustion), burnout was the one that generally showed the strongest correlations with job variables. Coworker support, job security, and job autonomy constituted notable exceptions. These three job variables correlated most strongly with NSPD. Multiple regression analysis indicated that, overall, job variables shared more variance with burnout (45.4 %) than with NSPD (32.9 %) and exhaustion (27.3 %). However, seven of the 11 job variables were significantly linked to NSPD, compared to five for burnout and exhaustion. These results are summarized in Tables 5 and 6 (see Supplemental Tables 4 and 5 for sex-specific analyses).

4. Discussion

The conventional wisdom among researchers is that working individuals experience burnout because of exposure to intractable job stressors. The solidity of this view, however, remains unclear. This study addressed the issue of burnout's job-relatedness focusing on (a) causal attributions to work and (b) associations with job variables (e.g., job satisfaction). Two general (i.e., work-unspecific) conditions, NSPD and exhaustion, were used as comparators.

4.1. Main findings

Only a minority of individuals with burnout symptoms attributed these symptoms to work—27.7 %. Hypothesis 1 was thus not supported. Interestingly, our findings did not support Hypothesis 2 either. The proportions of individuals attributing their symptoms to work were indeed similar for burnout, NSPD, and exhaustion. All in all, burnout did not stand out as a condition that people primarily or specifically ascribe to their work. These results are consistent with those obtained by Bianchi and Brisson [2] in a study conducted in Switzerland. The two investigators found that fewer than half the participants with burnout symptoms viewed their work as the main cause of these symptoms. The Swiss respondents attributed burnout and depressive symptoms to work to a comparable extent.

Hypothesis 3 received more support. Overall, job variables shared more variance with burnout than with NSPD and exhaustion. It is of note, however, that prominent job variables—coworker support, job security, and job autonomy—showed stronger links with NSPD than with burnout. The positive associations of coworker support [19], job security [8,13], and job autonomy [6] with general mental health are well-established. Furthermore, while burnout and exhaustion were each

Table 5.
Correlations of burnout, non-specific psychological distress, and exhaustion with job variables.

	Burnout				Non-specific psychological distress				Exhaustion			
	r	Count	Lower 95 % CI	Upper 95 % CI	*r*	Count	Lower 95 % CI	Upper 95 % CI	*r*	Count	Lower 95 % CI	Upper 95 % CI
Work-to-nonwork conflict	0.378	813	0.317	0.435	0.245	813	0.180	0.309	0.323	813	0.260	0.383
Nonwork-to-work conflict	0.350	813	0.288	0.409	0.270	813	0.205	0.332	0.282	813	0.217	0.344
Supervisor support	−0.311	797	−0.373	−0.247	−0.280	797	−0.342	−0.214	−0.251	797	−0.315	−0.184
Coworker support	−0.223	801	−0.288	−0.156	−0.271	801	−0.334	−0.205	−0.229	801	−0.293	−0.162
Job security	−0.239	813	−0.303	−0.173	−0.302	813	−0.363	−0.238	−0.207	813	−0.271	−0.140
Job autonomy	−0.281	813	−0.343	−0.217	−0.324	813	−0.384	−0.261	−0.257	813	−0.320	−0.192
Meaningful work	−0.368	813	−0.426	−0.307	−0.311	813	−0.372	−0.248	−0.214	813	−0.279	−0.147
Job satisfaction	−0.533	813	−0.580	−0.481	−0.415	813	−0.470	−0.356	−0.341	813	−0.401	−0.279
Wage satisfaction	−0.248	813	−0.312	−0.183	−0.192	813	−0.257	−0.125	−0.218	813	−0.282	−0.151
Benefits satisfaction	−0.326	772	−0.388	−0.262	−0.194	772	−0.261	−0.125	−0.243	772	−0.308	−0.175
Advancement satisfaction	−0.329	629	−0.397	−0.257	−0.259	629	−0.331	−0.185	−0.242	629	−0.314	−0.167

CI: confidence interval. Missing values were handled using a pairwise deletion method. All correlations are statistically significant at $p < .001$.

Table 6.
Summary of multiple regression analysis.

	Burnout			Non-specific psychological distress			Exhaustion			Multicollinearity
	β	*t*	*p*-value	*β*	*t*	*p*-value	*β*	*t*	*p*-value	VIF
Work-to-nonwork conflict	0.203	6.136	**< 0.001**	0.082	2.228	**0.026**	0.167	4.360	**< 0.001**	1.233
Nonwork-to-work conflict	0.220	6.825	**< 0.001**	0.192	5.366	**< 0.001**	0.201	5.403	**< 0.001**	1.169
Supervisor support	−0.004	−0.123	0.902	−0.063	−1.576	0.116	−0.041	−0.985	0.325	1.473
Coworker support	−0.019	−0.575	0.566	−0.115	−3.123	**0.002**	−0.077	−1.999	**0.046**	1.236
Job security	−0.054	−1.662	0.097	−0.129	−3.591	**< 0.001**	−0.061	−1.629	0.104	1.185
Job autonomy	−0.056	−1.636	0.102	−0.152	−4.039	**< 0.001**	−0.119	−3.036	**0.003**	1.298
Meaningful work	−0.133	−3.496	**< 0.001**	−0.048	−1.137	0.256	−0.038	−0.873	0.383	1.630
Job satisfaction	−0.330	−7.640	**< 0.001**	−0.241	−5.023	**< 0.001**	−0.179	−3.591	**< 0.001**	2.097
Wage satisfaction	−0.064	−1.821	0.069	−0.083	−2.130	**0.034**	−0.076	−1.872	0.062	1.387
Benefits satisfaction	−0.093	−2.420	**0.016**	0.038	0.896	0.371	−0.066	−1.486	0.138	1.664
Advancement satisfaction	0.021	0.535	0.593	0.032	0.757	0.449	0.051	1.161	0.246	1.649
Adjusted R^2	0.454			0.329			0.273			

VIF: variance inflation factor. Missing values were handled using a pairwise deletion method ($n = 614$). Statistically significant *p*-values (< 0.05) are bolded. Separate analyses for males and females are available in Supplemental Material—Supplemental Tables 2 and 3.

predicted by five of the 11 job variables under scrutiny, seven of these variables were predictive of NSPD. The patterning of our findings suggests a subtle nomological network among the variables of interest.

The study's results have implications for the conceptualization of burnout. That only a limited fraction of individuals with burnout symptoms attributes these symptoms to work does not accord with the notion that burnout is inherently an occupational phenomenon (e.g., [34]). In addition, if burnout is a work-specific condition, one would expect it to be attributed to work far more frequently than context-free entities such as NSPD or exhaustion. This is not what we observed. These findings bear on the debate over the distinctiveness and practical utility of the burnout construct (e.g., [3,4,33,38]).

Meta-analyses and systematic reviews indicate that work-centered interventions for burnout generally show disappointing outcomes (e.g., [11,18,22]). This state of affairs may not be surprising if, in fact, people experience burnout symptoms for reasons that often have little to do with work, or do not originate in work. The tendency to automatically link burnout to work-related problems may undermine our ability to support people with burnout symptoms. Explanatory shortcuts may delay the development of effective interventions. Alongside longitudinal research on the links between job stressors and burnout (e.g., [15]), causal attribution studies such as ours suggest that a myopic focus on organizational and occupational factors may hinder proper treatment of individuals with burnout complaints. The meaning of these complaints may have been misconstrued.

Our findings are relevant to how stakeholders communicate about burnout. It is difficult to find papers, in either the general or the scientific press, that do not present burnout as caused by work. Restraint may be needed until more is learned about the determinants of burnout. Many investigators have lamented the vacuity of the narratives surrounding burnout prevalence (e.g., [3,32,37]). Similar caveats may apply to how the etiology of burnout has been addressed. We recommend greater caution on these matters.

4.2. Limitations and future directions

There are at least five limitations to the present study. First, though relatively large, our sample was a convenience sample. Its representativeness vis-à-vis the Norwegian workforce is thus unclear—as an illustration, our sample was disproportionately female. Moreover, we collected only basic sociodemographic information about our sample. While this choice aimed to guarantee participants' anonymity, it limits our ability to characterize the sample in detail. In an effort to address these concerns and enhance the external validity of our findings, we additionally analyzed a nationally balanced quota sample of U.S. employees recruited with Prolific Academic ($N = 591$; 48.2 % female). Burnout was assessed with the ultra-brief, 4-item version of the work-contextualized BAT [16], and causal attributions to work with an item identical to the item employed with our Norwegian sample. Consistent with our initial findings and those of Bianchi and Brisson [2], we found that only 35.9 % of participants attributed their burnout symptoms to work. More detailed results are provided in Table 7. Second, while we compared burnout to two general entities—NSPD and exhaustion, other entities could have been considered (e.g., depression). Third, our study had a cross-sectional design. This design prevented us, for example, from clarifying the direction of the associations observed between burnout and job variables. Fourth, although we considered no fewer than 11 job variables, we did not focus on nonjob variables, such as work-unrelated stressors (e.g., major life events) or personality characteristics (e.g., neuroticism). Doing so might have strengthened our comparisons

Table 7.
A posteriori analysis—causal attributions to work in the U.S. sample.

	Burnout		
Response	Frequency	%	Valid %
Yes	182	30.8	35.9
Undecided	136	23.0	26.8
No	189	32.0	37.3
Excluded (no symptoms)	84	14.2	100.0
Total	591	100.0	–

Cumulative percentages may not be strictly equal to 100 due to rounding. Causal attributions targeting burnout were independent of participants' sex, χ^2 (2) = 0.068, $p = .967$, Cramer's $V = 0.012$, and age, χ^2 (4) = 6.888, $p = .142$, Cramer's $V = 0.084$.

between burnout, NSPD, and exhaustion. Fifth, future investigations may benefit from incorporating a qualitative approach and interviewing respondents about how they interpret the content of burnout scales.

In both the Norwegian and U.S. samples, about a quarter of respondents were undecided about the origins of their burnout symptoms. Such indecision possibly reflects the ambiguities that experiences of ill-being can entail. For some individuals, being undecided could indicate having no idea why they feel the way they do. For others, a conflation of home and work problems may be at play, making it difficult to infer a dominant cause. Often overlooked, "nonresponses" can offer insights into the question itself (e.g., reveal a drawback) and help investigators refine their methodological approaches.

4.3. Conclusions

This study invites stakeholders to exercise more caution when making etiological inferences about burnout. Assuming that symptoms *experienced at work* are necessarily *induced by work* may hinder our ability to mitigate these symptoms. On a conceptual level, our results further question the belief that burnout represents a work-specific syndrome and an occupational phenomenon [30,41]. In challenging work-centric views of burnout, our findings open the door to more personalized and comprehensive support mechanisms for people presenting with "burnout complaints."

CRediT authorship contribution statement

Renzo Bianchi: Writing – review & editing, Writing – original draft, Supervision, Software, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Elin Lindsäter:** Writing – review & editing, Resources, Methodology, Investigation, Conceptualization. **Tonje Erevik Vollan:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Rune Tesaker:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Håkon Homme Mathisen:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Sigrid Hovdal Øyangen:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Benjamin Ek:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Una Wen Bø:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Emilie Sofie Eilertsen:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Tonje Hauglie-Hanssen:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Jenny Sofie Hunvik:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Maja Hansen Rasul:** Writing – review & editing, Resources, Methodology, Investigation, Formal analysis, Data curation. **Irvin Sam Schonfeld:** Writing – review & editing, Resources, Methodology, Investigation.

Declaration of competing interest

None.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jpsychores.2024.111962.

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