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Impact of job insecurity on sexual desire: an exploratory analysis

Domenighetti Gianfranco[a], *Tomada Angelo*[b], *Marazzi Alfio*[c], *Abazi Ornela*[d], *Quaglia Jacqueline*[e]

[a] Institute of Public Communication and Education (ICIeF), Institute of Microeconomics and Public Economics (MECOP), University of Lugano (USI), Lugano, Switzerland
[b] Institute of Public Communication and Education (ICIeF), University of Lugano (USI), Lugano, Switzerland
[c] Institute for Social and Preventive Medicine, Centre Hospitalier Universitaire Vaudois, University of Lausanne, Lausanne, Switzerland
[d] Institute of Microeconomics and Public Economics (MECOP), University of Lugano (USI), Lugano, Switzerland
[e] Cantonal Health Office, Bellinzona, Switzerland

Summary

Principles: To explore, for the first time, the impact of job insecurity on sexual desire.

Methods: Cross-sectional analysis of a nationally representative sample of 7247 individuals aged 20–64 years working as full or part-time employees in Switzerland.

Results: The logistic regression analysis showed that workers aged 20–49 years perceiving high levels of job insecurity are exposed to a significantly higher risk of decrease of sexual desire compared to the reference group. The risk is 53% higher among men (OR 1.53; 95% CI 1.16–2.01) and 47% for woman (OR 1.47; 1.13–1.91). No increased risk was found for employees aged 50–64 years old.

Conclusion: An increasing fear of job loss is associated with a deterioration in sexual desire. These first preliminary findings should promote further epidemiological and clinical prospective studies on the impact of job insecurity on intimate relationships and sexual dysfunction.

Key words: job insecurity; job stressors; unemployment; sexual desire; sexual dysfunction; sexual behaviour; marital relationship; emotional health

Introduction

Work is generally viewed as one of the most important factors contributing to the social integration and well-being of an individual. Work affects economic and social status, sense of belonging and worth. Perceived job insecurity is thus considered one of the most important factors acting as a chronic stressor, in particular among workers accustomed to long term secure employment [1].

A large body of clinical and epidemiological evidence has shown that job insecurity and anticipation of job change can affect psychological and physical morbidity and mortality [1–5]. Evidence about the effects of job insecurity on marital and intimate relationships are scarce [6, 7], and no study has investigated the association between job insecurity and sexual dysfunctions or behaviours. This population based study, in this public health field, aimed to explore the impact of the fear of unemployment on sexual desire.

Methods

Study population

Data was used from the Swiss Health Survey (SHS), a 5 year cross-sectional population based study and random-digit-dialled telephone and written questionnaire surveys carried out by the Swiss Federal Statistical Office. The SHS collects data on health care, physical and mental health status, lifestyles and health-relevant practices and behaviours, social and working status and conditions among the permanent resident population in Switzerland. In order to obtain representative data the

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SHS implements a two step sampling procedure (household level and individual level) stratified by Cantons. The current analysis refers to the SHS carried out during 2002 including 19706 individuals aged 15 and older. The response rate was 60%. Erosion of the original gross sample of 32868 households was due to invalid household addresses (n = 2039) and refusal/non participation to the survey (n = 11123). Nevertheless, according to Swiss Federal Statistical Office, the final SHS sample is representative of the Swiss non institutionalised population [8].

For the purpose of the current study, a further subsample was selected targeting only employees working full and part-time aged 20–64 years (n = 8043). Of these, 796 individuals (9.9%) did not answer the first or the second (or to both) main questions of this study, 579 individuals (7.2%) did not answer the question on job insecurity and 266 individuals (3.3%) did not answer to the question on sexual desire. The analysis refers to a final sub-sample of 7247 cases.

Measurements and statistical analysis

Exposure and outcome variables were measured with two self reported questions. Levels of job insecurity were assessed by the question asked during the telephone survey: "Are you afraid of losing your present job? (a) not at all; (b) rather no; (c) rather yes; (d) yes a lot". Levels of decrease in sexual desire were checked by the following question included in the written questionnaire survey: "During the last two weeks have you experienced a decrease of sexual desire or a total absence of it? (a) very often; (b) sometimes; (c) never".

Since sexual dysfunctions are strongly related to both sex and age [9–12], the sample was analysed separately for these factors. We further selected, as covariates, other main socio-economic determinants and relevant respondents' characteristics which could have a potential influence on sexual desire (9–20): profession (workers, employees, managers), employment status (working full or part time), educational level (low, medium, high), civil status (single, married, divorced, separated), BMI (<25, 25–29, 30+), depression (normal, mild, severe), daily alcohol consumption (for men: abstemious, 1–59 gr, 60+ gr; for woman: abstemious, 1–39 gr, 40+ gr), daily tobacco consumption (non smokers, 1–19 cigarettes, ≥20 cigarettes), having hypertension and diabetes, and, for women only, use of hormone replacement therapy.

In order to show a possible relationship between perceived job insecurity and levels of sexual desire, crude prevalence rate for each sex and age group (20–49 versus 50–64) were firstly calculated. The significance of the association was assessed by the chi-square test and by Gamma coefficient. Then the bivariate associations of decrease in sexual desire with the principal independent variable and the selected covariates were calculated. The strength of the association between the exposure variable (job insecurity: Not at All + Rather Low versus Rather High + High) and the outcome variable (decrease of sexual desire: Never versus Sometimes + Very Often) was measured by performing logistic regression models including covariates that were significantly associated with a decrease of sexual desire.

The 95% confidence intervals (CIs) were calculated for each OR. p values are two tailed. Statistical analyses were performed with the SPSS 15 software package.

Results

Table 1 shows the crude prevalence rates of job insecurity and sexual desire for the total sample, and by sex and age groups. In Switzerland, 11.5% of employees have a high or quite high fear of job loss while 35% mentioned a decrease in sexual desire.

For men only, rates of job insecurity increased significantly (p <0.001) according to age (from 11 to 15%). In contrast, prevalence rates of loss of sexual desire significantly increased (p <0.001) with age for both men and women. In particular, compared to the same age groups, women have a higher prevalence of loss of sexual desire than men ["sometimes/very often": women, age group 20–49: 39.6% / men: 25.1% (p <0.001); women, age group 50–64: 46.1% / men: 39.6% (p <0.001)].

Table 2 shows the crude prevalence rates for each level of decrease in sexual desire by levels of job insecurity for the whole sample. A significant positive dose-response association between these variables is confirmed by Chi-square test (p <0.001) and Gamma Coefficient (p <0.001).

Tables 3 and 4 refer to the crude prevalence rates stratified by sex and age groups.

For men, a dose-response relationship be-

Table 1

Crude prevalence rates of job insecurity and decrease of sexual desire for total population and stratified by sex and age.

	Total	Men		Women	
	N = 7247	20–49 years (N = 2757)	50–64 years (N = 934)	20–49 years (N = 2602)	50–64 years (N = 954)
Job insecurity	N (%)	N (%)	N (%)	N (%)	N (%)
Not at all	3052 (42.1)	1092 (39.6)	368 (39.4)	1192 (45.8)	400 (41.9)
Rather low	3359 (46.4)	1360 (49.4)	426 (45.6)	1130 (43.4)	443 (46.5)
Rather high	655 (9.0)	249 (9.0)	97 (10.4)	229 (8.8)	80 (8.4)
High	181 (2.5)	56 (2.0)	43 (4.6)	51 (2.0)	31 (3.2)
Decrease in sexual desire					
Never	4715 (65.1)	2065 (74.9)	564 (60.4)	1572 (60.4)	514 (53.9)
Sometimes	2184 (30.1)	613 (22.2)	329 (35.2)	882 (33.9)	360 (37.7)
Very often	348 (4.8)	79 (2.9)	41 (4.4)	148 (5.7)	80 (8.4)

Table 2

Total population: crude prevalence rates of decrease in sexual desire for levels of job insecurity.

	Job insecurity levels					
	Crude prevalence rate				*p* value	
Job insecurity	Not at all N (%)	Rather low N (%)	Rather high N (%)	High N (%)	Chi-square test	Gamma coefficient
Decrease of sexual desire						
TOTAL (N = 7247)	**N = 3052**	**N = 3359**	**N = 655**	**N = 181**	<0.001	<0.001
Very often	129 (4.2)	160 (4.8)	43 (6.6)	16 (8.8)		
Sometimes	816 (26.7)	1050 (31.3)	249 (38.0)	69 (38.1)		
Never	2107 (69.0)	2149 (64.0)	363 (55.4)	96 (53.0)		

Table 3

Men: crude prevalence rates of decrease in sexual desire for levels of job insecurity.

	Job insecurity levels					
	Crude prevalence rate				*p* value	
Job insecurity	Not at all N (%)	Rather low N (%)	Rather high N (%)	High N (%)	Chi-square test	Gamma coefficient
Decrease of sexual desire						
MEN 20–49						
Total (N = 2757)	**N = 1092**	**N = 1360**	**N = 249**	**N = 56**	<0.001	<0.001
Very often	26 (2.4)	40 (2.9)	8 (3.2)	5 (8.9)		
Sometimes	197 (18.0)	321 (23.6)	74 (29.7)	21 (37.5)		
Never	869 (79.6)	999 (73.5)	167 (67.1)	56 (53.6)		
MEN 50–64						
Total (N = 934)	**N = 368**	**N = 426**	**N = 97**	**N = 43**	0.865	0.279
Very often	16 (4.3)	18 (4.2)	5 (5.2)	2 (4.7)		
Sometimes	125 (34.0)	148 (34.7)	37 (38.1)	19 (44.2)		
Never	227 (61.7)	260 (61.0)	55 (56.7)	22 (51.2)		

Table 4

Women: crude prevalence rates of decrease in sexual desire for levels of job insecurity.

	Job insecurity levels					
	Crude prevalence rate				*p* value	
Job insecurity	Not at all N (%)	Rather low N (%)	Rather high N (%)	High N (%)	Chi-square test	Gamma coefficient
Decrease of sexual desire						
WOMAN 20–49						
Total (N = 2602)	**N = 1192**	**N = 1130**	**N = 229**	**N = 51**	**<0.001**	**<0.001**
Very often	63 (5.3)	57 (5.0)	22 (9.6)	6 (11.8)		
Sometimes	359 (30.1)	409 (36.2)	102 (44.5)	12 (23.5)		
Never	770 (64.6)	664 (58.8)	105 (45.9)	33 (64.7)		
WOMAN 50–64						
Total (N = 954)	**N = 400**	**N = 443**	**N = 80**	**N = 31**	**0.010**	**<0.001**
Very often	24 (6.0)	45 (10.2)	8 (10.0)	3 (9.7)		
Sometimes	135 (33.8)	172 (38.8)	36 (45.0)	17 (54.8)		
Never	241 (60.3)	226 (51.0)	36 (45.0)	11 (35.5)		

tween job insecurity and decrease of sexual desire only exists for the age group 20–49 years (Chi-square: p <0.001; Gamma Coefficient: p <0.001), while the relationship is not significant for the age group 50–64 years (Chi-square: p = 0.865; Gamma Coefficient: p = 0.279).

In contrast, for women, dose-response associations between the exposure and outcome variables were significant for both age groups (20–49 years: Chi-square: p <0.001, Gamma Coefficient: p <0.001; 50–64 years: Chi-square: p = 0.010, Gamma Coefficient: p <0.001).

Table 5 shows, for men and women, the bivariate associations of decrease in sexual desire with the principal independent variable and other covariates.

For men aged 20–49 years, decrease in sexual desire was significantly associated with depression, fear of job loss and hypertension, while in the age group 50–64 years only depression was associated with the outcome variable.

For women aged 20–49 years, depression, job insecurity and civil status were associated with decrease in sexual desire. In the age group 50–64, in

Table 5

Bivariate associations of decrease in sexual desire with the principal independent variable and other covariates

	Men 20–49					Women 20–49				
	N	Odds ratio	95% CI min	95% CI max	P value	N	Odds ratio	95% CI min	95% CI max	P value
Principal independent variable										
Job insecurity										
Not at all/rather low	2065	Ref.				1572	Ref.			
High/rather high	692	1.75	1.36	2.26	<0.001	1030	1.66	1.30	2.13	<0.001
Covariates										
Depression										
Low	1450	Ref.				1295	Ref.			
Medium	710	1.47	1.19	1.82	<0.001	672	1.75	1.45	2.13	<0.001
High	563	2.86	2.31	3.54	<0.001	605	3.10	2.54	3.79	<0.001
Civil status										
Married	1588	Ref.				1266	Ref.			
Single	979	0.35	0.78	1.13	0.505	1018	0.66	0.51	0.86	0.001
Separated/divorced/widower	190	0.87	0.61	1.24	0.449	318	0.61	0.52	0.73	0.002
Educational level										
High	820	Ref.				408	Ref.			
Medium	1762	1.02	0.84	1.23	0.861	1955	1.15	0.92	1.43	0.218
Low	175	1.01	0.67	1.48	0.941	238	1.33	0.96	1.84	0.090
Profession										
Managers	1337	Ref.				1253	Ref.			
Employees	383	1.20	0.93	1.55	0.161	970	1.04	0.87	1.23	0.677
Workers	1009	1.07	0.89	1.30	0.466	360	1.07	0.85	1.37	0.536
Employment status										
Full time	2744	Ref.				2582	Ref.			
Part time	13	1.12	0.31	4.08	0.866	20	1.22	0.48	3.06	0.674
Daily tobacco consumption										
No smokers	1815	Ref.				1722	Ref.			
1–19 cigarettes	506	0.94	0.75	1.12	0.630	614	1.18	0.98	1.42	0.081
20+ cigarettes	436	1.12	0.88	1.41	0.364	266	1.06	0.81	1.38	0.674
BMI										
<25	1240	Ref.				1905	Ref.			
25–29	866	1.11	0.91	1.35	0.317	367	1.22	0.97	1.53	0.082
30+	162	1.22	0.84	1.76	0.287	120	0.91	0.62	1.34	0.651
Daily alcohol consumption										
Abstemious	255	Ref.				576	Ref.			
1–59 gr (women: 1–39 gr)	2303	0.94	0.70	1.27	0.703	1727	0.96	0.80	1.17	0.720
60+ gr (women: 40+)	77	1.38	0.79	2.39	0.257	264	0.90	0.67	1.22	0.509
Hypertension										
No hypertension	2389	Ref.				2417	Ref.			
Hypertension	149	1.66	1.17	2.36	0.004	92	1.50	0.99	2.28	0.056
Diabetes										
No diabetes	2700	Ref.				2540	Ref.			
Diabetes	40	1.13	0.56	2.28	0.730	45	1.34	0.74	2.42	0.331
Hormone replacement therapy										
No						2525	Ref.			
Yes						77	1.15	0.73	1.82	0.551

Table 5 (continued)

	Men 50–64					Women 50–64				
	N	Odds ratio	95% CI min	95% CI max	P value	N	Odds ratio	95% CI min	95% CI max	P value
Principal independent variable										
Job insecurity										
Not at all/rather low	794	Ref.				843	Ref.			
High/rather high	140	1.30	0.90	1.86	0.158	111	1.69	1.13	2.52	0.010
Covariates										
Depression										
Low	579	Ref.				595	Ref.			
Medium	224	1.41	1.03	1.93	0.031	208	1.21	0.88	1.66	0.233
High	120	1.67	1.12	2.48	0.011	128	1.99	1.35	2.93	0.001
Civil status										
Married	664	Ref.				472	Ref.			
Single	100	0.85	0.55	1.31	0.847	136	0.68	0.46	1.01	0.055
Separated/divorced/widower	170	0.81	0.57	1.14	0.807	346	0.91	0.69	1.20	0.506
Educational level										
High	252	Ref.				104	Ref.			
Medium	607	1.26	0.93	1.70	0.141	687	0.77	0.51	1.17	0.226
Low	75	0.99	0.58	1.70	0.986	163	0.75	0.46	1.23	0.255
Profession										
Managers	468	Ref.				395	Ref.			
Employees	126	1.34	0.90	1.99	0.148	396	1.35	1.02	1.79	0.035
Workers	334	0.98	0.73	1.30	0.871	155	1.39	0.96	2.02	0.083
Employment status										
Full time	933	Ref				945	Ref.			
Part time	1	-	-	-	-	9	1.07	0.29	4.01	0.919
Daily tobacco consumption										
No smokers	716	Ref.				686				
1–19 cigarettes	106	0.88	0.58	1.32	0.783	159	1.17	0.83	1.65	0.378
20+ cigarettes	111	0.94	0.62	1.43	0.528	108	1.13	0.75	1.69	0.566
BMI										
<25	261	Ref.				538	Ref.			
25–29	377	1.00	0.63	1.58	0.934	215	1.38	1.01	1.90	0.046
30+	108	0.99	0.64	1.53	0.995	76	1.07	0.66	1.73	0.790
Daily alcohol consumption										
Abstemious	79	Ref.				178	Ref.			
1–59 gr (women: 1–39 gr)	787	1.28	0.79	2.08	0.322	687	0.72	0.42	1.24	0.374
60+ gr (women: 40+)	35	1.62	0.72	3.65	0.243	75	0.86	0.62	1.20	0.239
Hypertension										
No hypertension	726	Ref.				777	Ref.			
Hypertension	162	1.33	0.94	1.87	0.104	155	0.92	0.65	1.31	0.657
Diabetes										
No diabetes	878	Ref.				919	Ref.			
Diabetes	52	1.71	0.97	2.99	0.061	30	0.67	0.31	1.42	0.292
Hormone replacement therapy										
No						604	Ref.			
Yes						350	0.89	0.68	1.16	0.387

addition to fear of job loss and depression, profession and body mass index were significantly associated with the outcome variable.

Tables 6 and 7 refer to the results of logistic regression analysis according to sex and age groups.

For men, a significant odds-ratio of 1.53 (CI 1.16–2.01) only exists for the age group 20–49 years, meaning that workers perceiving high levels of job insecurity are exposed to a 53% higher risk of having a decrease in sexual desire compared to the reference group (table 6).

Table 6

Men: logistic regression of predictors of decrease in sexual desire

Men 20–49 (N = 2507)		Odds ratio	95% CI min	95% CI max	p-value
Independent variable	**Job insecurity**				
	Not at all/rather low	Ref.			
	High/rather high	1.53	1.16	2.01	0.002
Covariates	**Depression**				
	Low	Ref.			
	Medium	1.44	1.15	1.80	0.007
	High	2.77	2.21	3.47	<0.001
	Hypertension				
	No	Ref.			
	Yes	1.65	1.14	2.37	0.007
Men 50–64 (N = 923)		**Odds ratio**	**95% CI min**	**95% CI max**	**p-value**
Independent variable	**Job insecurity**				
	Not at all/rather low	Ref.			
	High/rather high	1.17	0.81	1.70	0.406
Covariates	**Depression**				
	Low	Ref.			
	Medium	1.39	1.01	1.91	0.040
	High	1.63	1.12	2.48	0.016

Table 7

Women: logistic regression models of predictors of decrease in sexual desire.

Women 20–49 (N = 2572)		Odds ratio	95% CI min	95% CI max	p-value
Independent variable	**Job insecurity**				
	Not at all/rather low	Ref.			
	High/rather high	1.47	1.13	1.91	0.004
Covariates	**Depression**				
	Low	Ref.			
	Medium	1.77	1.45	2.15	<0.001
	High	3.13	2.55	3.83	<0.001
	Civil status				
	Married	Ref.			
	Single	0.59	0.50	0.71	<0.001
	Separated/divorced/ widower	0.63	0.48	0.82	0.001
Women 50–64 (N = 802)		**Odds ratio**	**95% CI min**	**95% CI max**	**p-value**
Independent variable	**Job insecurity**				
	Not at all/rather low	Ref.			
	High/rather high	1.35	0.86	2.11	0.189
Covariates	**Depression**				
	Low	Ref.			
	Medium	1.30	0.92	1.84	0.135
	High	2.12	1.38	3.26	0.001
	Profession				
	Managers	Ref.			
	Employees	1.32	0.97	1.80	0.081
	Workers	1.36	0.90	2.06	0.147
	BMI				
	<25	Ref.			
	25-29	1.30	0.94	1.81	0.116
	30+	1.02	0.62	1.68	0.941

For women, 20–49 years old respondents, who stated they were afraid of losing their job, 47% were more likely to have a significant decrease in sexual desire with respect to those without problems of job insecurity (OR: 1.47; CI 1.13–1.91), while in the logistic regression analysis performed for the age group 50–64 the exposure variable is no more associated with a decrease in sexual desire (table 7).

According to these findings, job insecurity is therefore a relevant risk factor with respect to decrease in sexual desire only for employees in the age group 20–49, regardless of gender. Moreover, the difference of the strength of the association between the exposure and the outcome variables show that fear of job loss has a slight potentially greater negative impact on men than on women.

Regarding covariates included in the logistic regression models, it is important to point out that the variable "depression" plays an important role on sexual desire regardless of gender and age. The strength of the association is always even greater than the association to job insecurity. On the contrary, other covariates are more age and gender specific: in the age groups 20–49 years, hypertension is a relevant risk factor for men, while for women civil status plays a significant role.

Discussion

Although there are some methodological weaknesses (cross-sectional analysis, truthfulness of self-reported intimate behaviour during a questionnaire survey), to our knowledge this is the first population based exploratory analysis which provides statistical evidence of an association between job insecurity and sexual desire. The results show that an increasing fear of job loss is associated with a deterioration in sexual desire among employees aged 20–49. The robustness of these findings seems to be confirmed by the substantial reduction of the potential selection bias due to the low rates of non answer to both the self reported questions regarding job insecurity and decrease in sexual desire. In particular, although this last question would be considered highly unacceptable in some countries, in Switzerland the non response rate was only 3.3%. Furthermore the robustness of the association between the exposure and the outcome variables is also sustained by the low levels of missing data in the logistic regression models performed for people aged 20–49 years that are respectively 1.2% for the women's group and 9.1% for the men's group.

Our results are not surprising since emotional stress has been identified as the most important predictor of low sexual desire [22]. Thus, a decrease of sexual desire could be viewed as one of the by-products or outcomes of the increase of emotional stress related to job insecurity. Moreover, it is important to point out, as shown by the logistic regression analy-

sis, the role played by depression. In fact, other studies have shown that the most prevalent product of fear of job loss is depressive symptoms [1, 2]. The question remains to what extent decrease of sexual desire could be viewed as a direct consequence of job insecurity or a by-product of depression [13]. In fact employment stressors might affect family functioning via depression [23].

The current results also confirm the role of unemployment status as an important factor among determinants of decrease in sexual desire [24, 25]. The current data was obtained during the year 2002, a period of low unemployment rate and of good economic growth for Switzerland. The crude rate of fear of job loss among employees, at the time of SHS (see table 1), was 11.5%. At the current period, it has reached a rate of 23% according to a survey carried out in November 2008 by Gallup International among 1000 Swiss citizens [26, 27].

These preliminary findings should promote further epidemiological and clinical prospective studies on the impact of job insecurity and work stressors on intimate life and sexual dysfunctions. In fact, although preliminary, this analysis also provides indications that stressful events such as restructuring, downsizing, privatization, mergers, and closures could also affect the family or intimate relationship life of workers who might consequently face an additional health problem.

Correspondence:
Gianfranco Domenighetti
Università della Svizzera italiana
Via Buffi 13
CH-6900 Lugano
E-Mail: gianfranco.domenighetti@lu.unisi.ch

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