

A scoping review of natural language processing for detecting work-related stress among health professionals

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Clinical trial number: not applicable.

Search on CINAHL Ultimate		
Search number	Query	Records retrieved
S1	(health professional OR health personnel OR health care provider OR medical practitioner OR caregiver OR clinician OR medical professional OR health personnel OR allied health personnel OR physician OR nurse OR healthcare worker)	1,176,863
S2	(work-related stress or job-related stress or occupational stress or workplace stress or work stress or job stress or occupational pressure or work-induced stress or professional stress or work-related strain or Job-related tension)	27,890
S3	(nlp ^a or natural language processing or text mining)	22,076
S4	S1 AND S2 AND S3	24
S5	Limited to English, German, French, Abstract available	21

^anlp: natural language processing.

Search on Cochrane Library

Search number	Query	Records retrieved
1	#1 health providers*	176,988
	#2 medical practitioner*	
	#3 caregiver*	
	#4 clinician*	
	#5 medical professional*	
	#6 health personnel*	
	#7 physician*	
	#8 nurse*	
	#9 healthcare worker*	
	#10 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9	
2	#11 work-related stress*	1,3495
	#12 job-related stress*	
	#13 workplace stress*	
	#14 work stress*	
	#15 job stress*	
	#16 occupational pressure*	

	#17	occupational stress*	
	#18	work-induced stress*	
	#19	professional stress*	
	#20	work-related strain*	
	#21	job-related tension*	
	#22	#11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21	
3	#23	"NLP ^a "	246
	#24	"natural language processing"	
	#25	"text mining"	
	#26	#23 OR #24 OR #25	
4	#1 AND #2 AND #3		18
5	Limited to English, German, French, Abstract available		17

^aNLP: natural language processing.

Search on Medline (via Ovid)		
Search number	Query	Records retrieved
1	health professional* OR health personnel* OR health care provider* OR medical practitioner* OR caregiver* OR clinician* OR medical professional* OR health personnel* OR allied health personnel* OR physician* OR nurse* OR healthcare worker*	1,673,916
2	work-related stress* or job-related stress* or occupational stress* or workplace stress* or work stress* or job stress* or occupational pressure* or work-induced stress* or professional stress* or work-related strain* or Job-related tension*	14,858
3	NLP ^a OR natural language processing* OR text mining*	19,181
4	#1 AND #2 AND #3	7
5	Limited to English, German, French, Abstract available	6

^aNLP: natural language processing.

Search on PubMed		
Search number	Query	Records retrieved
1	(((((((((caregiver) OR (nurse)) OR (allied health personnel)) OR (physician)) OR (health personnel)) OR (medical professional)) OR (clinician)) OR (medical practitioner)) OR (health providers)) OR (health professional)	2,930,096
2	((NLP ^a) OR (natural language processing)) OR (text mining)	51,668
3	(((((((((work-related stress) OR (job-related stress)) OR (occupational stress)) OR (workplace stress)) OR (work stress)) OR (job stress)) OR (occupational pressure)) OR (work-induced stress)) OR (professional stress)) OR (work-related strain)) OR (job-related tension)	165,798
4	#1 AND #2 AND #3	70
5	Limited to English, German, French, Abstract available	69

^aNLP: natural language processing.

Search on ACM Digital Library		
Search number	Query	Records retrieved
1	"health professional*" OR "health personnel*" OR "health care provider*" OR "medical practitioner*" OR "caregiver*" OR "clinician*" OR "medical professional*" OR "health personnel*" OR "allied health personnel*" OR "physician*" OR "nurse*" OR "healthcare worker"	12,858
2	"NLP ^a " OR natural language processing OR "text mining"	167,943
3	"work-related stress" OR "job-related stress" OR "occupational stress" OR "workplace stress" OR "work stress" OR "job stress" OR "occupational pressure" OR "work-induced stress" OR "professional stress" OR "work-related strain" OR "job-related tension"	601
4	#1 AND #2 AND #3	68
5	Limited to English, German, French, Abstract available	65

^aNLP: natural language processing.

Search on IEEE Xplore		
Search number	Query	Records retrieved
1	("All Metadata":health professional* OR "All Metadata":health personnel* OR "All Metadata":health care provider* OR "All Metadata":medical practitioner* OR "All Metadata":caregiver* OR "All Metadata":clinician* OR "All Metadata":medical professional* OR "All Metadata":health personnel* OR "All Metadata":allied health personnel*)	28,673
2	("All Metadata":NLP ^a OR "All Metadata":nlp OR "All Metadata":natural language processing OR "All Metadata":text mining* OR "All Metadata":data mining*)	193,653
3	("All Metadata":work-related stress OR "All Metadata":job-related stress OR "All Metadata":occupational stress OR "All Metadata":workplace stress OR "All Metadata":work stress OR "All Metadata":job stress OR "All Metadata":occupational pressure OR "All Metadata":work-induced stress OR "All Metadata":professional stress OR "All Metadata":work-related strain OR "All Metadata":job-related tension)	27,237
4	#1 AND #2 AND #3	31
5	Limited to English, German, French, Abstract available	26

^aNLP: natural language processing.