

RESEARCH REPORTS

Work-Related Outcomes After a Myocardial Infarction

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Study Objective. To evaluate work-related outcomes of patients at 7 months after a myocardial infarction and to identify patient, disease, and intervention characteristics associated with these outcomes.

Design. Cross-sectional survey analysis.

Setting. Large Midwestern academic health system.

Patients. Eighty-nine patients with the discharge diagnosis of acute myocardial infarction during a 1-year index period.

Intervention. Work performance questionnaire administered by telephone, and medical record review.

Measurements and Main Results. Seven months after discharge, 232 patients were interviewed by telephone to determine work status before and after myocardial infarction, work-related outcomes (absenteeism and perceived work performance, assessed by the Work Performance Scale [WPS] of the Functional Status Questionnaire), and health-related quality of life. Univariate analyses were used to determine the association between individual characteristics and work-related outcomes. Of the 89 patients who had worked before the index myocardial infarction, 21 (23.6%) did not return to work. Variables associated with the outcome of not returning to work were past myocardial infarction (before the index myocardial infarction), coronary artery bypass graft surgery, heart failure, positive stress test, and low score on the Physical Component Summary (PCS-12) scale of the Short Form-12. Patients who did not return to work also tended to have more comorbidities and take more prescribed drugs than those who returned to work. Median WPS scores were higher for patients who had higher ejection fractions at discharge, had not experienced a myocardial infarction before the index event, underwent a percutaneous revascularization intervention at the time of hospitalization, and had not recently been absent from work. Workers reporting absences had lower PCS-12 scores than their counterparts or reported a rehospitalization before the survey.

Conclusion. Preexisting cardiac disease and poorer physical functioning were consistently related to worse work-related outcomes. This small study demonstrates the need for a larger, broader study that includes health beliefs, treatment, and other job and patient factors that may influence work-related outcomes.

Key Words: perceived work performance, questionnaire, myocardial infarction.

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Work is an important human function that provides for food, clothing, and shelter. Work also meets people's personal needs for affiliation, self-development, and sense of belonging.¹ If illness or medical interventions interfere with the ability to work or with work performance, a person's satisfaction with their functional state may be diminished. A strong relationship between work-related issues and life satisfaction has been found.² Work performance, health, and sense of well-being are interrelated and are affected by many of the same personal, disease, environmental, and work-related factors.

Patients who have experienced a myocardial infarction or unstable angina often have physical symptoms that may impair functioning to the point of interfering with work, home, and social activities.³⁻⁷ In addition, depression is common in the postinfarction period and is a well-documented predictor of absenteeism, disability, and poor health-related quality of life.⁸⁻¹⁴ An estimated 50-90% of people who worked before a myocardial infarction return to work after recovery.¹⁵⁻²⁴ It is therefore important to assess the effects of a myocardial infarction and any residual physical or mental influences on work performance and attendance rates.

Studies of the effect of cardiovascular disease on work-related outcomes primarily have centered on absenteeism and patients' ability to return to work. For example, an analysis of the database of the Midlife Development in the United States survey revealed that patients with heart disease experience more days off from work and more "cut-down" days (days in which the patient goes to work but is less productive than normal) than patients with other chronic illnesses, with the exception of cancer.²⁵ Other studies have concentrated on work capability and employment after coronary artery surgery, percutaneous transluminal coronary angioplasty (PTCA), and coronary artery bypass graft surgery (CABG).²⁶⁻²⁸

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Few studies have examined the work performance of patients who return to work shortly after experiencing a myocardial infarction.⁶ Perceived work performance can be conceptualized as the physical, psychological, and social functioning of an individual while at work. This is similar to the conceptualization of health-related quality of life, a patient-derived measurement that complements physiologic and clinical markers of illness and/or its treatment. Likewise, a work-related outcomes measure, such as perceived work performance, may be considered a functional status measure related to role performance. Assessment of work functioning is included in the role-functioning domains of many health-related quality of life instruments. However, most such scales combine work with other activities, so the frame of reference is much broader than work-related activities.

Questionnaires that use work-related descriptors to frame questions direct respondents' attention to targeted work-related issues. Several questionnaires include patient-perceived work performance as a measurable construct.²⁹⁻³¹ Work performance scales have also been developed and are included in health profiles. An example is the Work Performance Scale (WPS) component of the Functional Status Questionnaire.³²

We sought to evaluate the work-related outcomes of patients at 7 months after a myocardial infarction, using a work performance questionnaire administered by telephone. Other goals were to describe the properties of the work performance questionnaire we administered and to examine the influence of patient, disease, and intervention characteristics associated with patients' return to work, perceived work performance, and days missed from work (work-related outcomes) in this patient population.

Methods

Study Setting and Sample Selection

This was a cross-sectional study of patients discharged from a large Midwestern academic health system from July 1, 1999-July 31, 2000. We identified all patients aged 18 years and older with the primary or secondary discharge diagnosis of acute myocardial infarction, as specified by the *International Classification of Diseases, Ninth Revision* (code 410). Each patient's status with regard to ST-segment elevation myocardial infarction was identified. To be included in the study, patients had to be able to communicate verbally and speak sufficient English to participate

in the telephone survey. Patients also had to answer affirmatively to a survey question asking if they had worked for pay before the index myocardial infarction. These patients constituted the study sample. The study was approved by the human investigations committee of the affiliated medical school.

Data Collection

A cardiology nurse clinician and two cardiac medicine fellows obtained information on patient demographics, medical history, and in-hospital course from the health system's medical records. This information was entered into a database used for quality assurance projects and reports. An investigator contacted patients at home by telephone approximately 7 months after discharge. The survey was conducted during the telephone interview. At least five attempts during different times of day were made to contact patients.

Data and Measures

Patient and Disease Characteristics

Patient and disease characteristics were obtained from both chart review and patient self-reporting during the telephone interview. Age, sex, race, marital status, number of other documented illnesses, type of myocardial infarction, ejection fraction at the time of discharge, and total number of drugs prescribed at the time of discharge were obtained from the medical record. Body mass index (BMI), calculated as weight (kilograms) divided by height² (meters), was calculated for each patient based on data from the medical chart.

Treatment Characteristics

Medical history before admission was obtained from a patient's medical record. It consisted of cardiovascular diagnoses, related procedures, and comorbidities. Events and procedures that occurred between the time of discharge and the telephone survey were recorded during the telephone interview. This information included occurrence of rehospitalizations for cardiac problems, occurrence of stroke, scheduled and unscheduled revascularization procedures (PTCA, CABG, catheterization), and stress tests.

Drugs taken at the time of the interview were recorded as reported by the patient. We documented the presence of the following drugs: antiplatelet agents, β -blockers, angiotensin-converting enzyme (ACE) inhibitors (or

angiotensin II receptor blockers), and lipid-lowering agents. Self-reported compliance with cardiovascular drugs in general was assessed using a 4-item scale that produces a compliance scale score.³³ Scores for this scale range from 1 (noncompliant) to 5 (totally compliant).

Work-Related Outcomes

All patients in the study reported having worked for pay before the index myocardial infarction. Return to work was determined by asking if the patient had returned to work at the time of the survey. Self-reported work performance was determined by using the WPS from the Functional Status Questionnaire³² (Appendix 1). The WPS consists of six items with four response options each. Several concepts are measured by these items, including amount of time at work, quantity of work completed, need for extra rest while working, accuracy of work, changes in work, and fear of losing one's job due to health problems. The WPS is scored by calculating the mean of the six responses. Several items must be reverse-scored before the patient's scale score can be calculated. For this study, scores ranged from 1–4, with 4 being the highest level of work performance. The WPS uses a 4-week recall period.

The variable "days missed from work" was assessed by asking respondents how many days they missed from work because of cardiovascular disease in the past 4 weeks. Responses were recorded as a continuous variable. Because most respondents (83%) indicated they did not miss work, and of those who did miss work most missed from 1–3 days (another 10%), this variable was changed to a dichotomous variable of no missed days from work or 1 or more missed days from work for analysis.

Health-Related Quality of Life

We used the Short Form (SF)-12, which provides a generic measure of health status, to evaluate health-related quality of life.³⁴ The SF-12 was developed as a shorter and valid alternative to the SF-36 for use in surveys of populations. The 12 items of the SF-12 are a subset of those in the SF-36. The SF-12 includes one or two items from each of the eight health concepts measured by the SF-36. This questionnaire provides two summary measures of functioning and well-being: the Physical Component Summary (PCS-12) and the Mental Component Summary (MCS-12). Item scores are coded,

summed, and transformed to a scale ranging from 0 (worst health status) to 100 (best health status), then adjusted to norm-based scaling for a final score for each health concept. The questionnaire uses a 4-week recall period.

Analysis

Summary statistics were presented as frequencies and percentages, or as medians, mean \pm SD, or ranges. The Cronbach α was used to test the internal reliability of the WPS. Associations between nominal variables and the dependent variables of return to work (yes, no), work performance score, and work absenteeism were determined using the Pearson χ^2 test and, when appropriate, the Fisher exact test. We used the 2-tailed Wilcoxon rank sum test or the χ^2 test to examine univariate associations between three dependent variables—return to work, WPS score, and number of days missed from work—and the nominal explanatory variables. Age, BMI, and number of other illnesses were recoded as categorical variables, based on the median split. Ejection fraction data were split at 40%. We removed two variables—history of catheterization before the index myocardial infarction and occurrence of catheterization during the interim period (between discharge and survey)—due to high correlation with several other explanatory variables. The SPSS for Windows version 9.0 (SPSS Inc., Chicago, IL) was used for analyses.

Results

Two hundred and fifty-eight patients were discharged from the hospital during the study period. We excluded 26 (10%) patients who died or were lost to follow-up and 32 (12%) patients who lacked complete information for analysis. This left 200 (78%) patients as the sample used for analysis. Of these, 89 patients indicated that they had worked for pay outside the home before the index myocardial infarction. This group served as the study sample for this analysis.

Description of the Study Patients

The mean \pm SD follow-up period was 7.5 ± 1.5 months. Characteristics of respondents who worked before their myocardial infarction are provided in Table 1. Most patients had not had ST-segment elevation, and most had an ejection fraction of 40% or greater at the time of discharge or shortly after discharge for the index myocardial infarction. Many patients had documented ischemic

Table 1. Characteristics of the 89 Respondents Who Were Working at the Time of the Index Myocardial Infarction

Characteristic	Value
Age (yrs)	
Mean \pm SD	55.5 \pm 10.0
Median	54.6
Range	32–86
No. of other documented diagnoses	
Mean \pm SD	1.8 \pm 1.2
Median	2.0
Range	0–6
BMI	
Mean \pm SD	29.3 \pm 6.3
Median	28.5
Range	16.0–56.9
	No. (%) of Patients
BMI categories ^a	
Lean (BMI < 25)	19 (21.3)
Overweight (25 \leq BMI < 30)	36 (40.4)
Obese (BMI \geq 30)	33 (37.1)
Race	
Caucasian	79 (88.8)
Minority or unknown	10 (11.2)
Marital status	
Married	67 (75.3)
Single or unmarried	22 (24.7)
Sex	
Male	72 (80.9)
Ejection fraction	
< 40%	27 (30.3)
\geq 40%	62 (69.7)
Type of myocardial infarction ^b	
ST-segment elevation	33 (37.1)
Non-ST-segment elevation	54 (60.7)
Diagnoses and procedures before index myocardial infarction	
Angina	48 (53.9)
Smoking	67 (75.3)
Previous myocardial infarction	26 (29.2)
Heart failure	9 (10.1)
Transient ischemic attacks	3 (3.4)
Diabetes mellitus	12 (13.5)
Malignancy	3 (3.4)
Renal disease	3 (3.4)
Positive stress test	9 (10.1)
Peripheral vascular disease	10 (11.2)
Hypertension	48 (53.9)
Hyperlipidemia	45 (50.6)
Atrial fibrillation	3 (3.4)
PCI	13 (14.6)
CABG	10 (11.2)
Events during hospitalization	
PCI	60 (67.4)
CABG	7 (7.9)

BMI = body mass index; PCI = percutaneous coronary intervention; CABG = coronary artery bypass graft surgery.

^aData not available for one patient.

^bData not available for two patients.

heart disease before the index myocardial infarction and/or history of smoking, hypertension, or

Table 2. Characteristics of the 89 Patients at the Time of the Survey

Variable	Value
Self-reported drug compliance score, ^a mean ± SD	4.8 ± 0.4
Total no. of drugs Mean ± SD	5.8 ± 2.7
Median	5.0
Range	1–15
PCS-12 score Mean ± SD	43.3 ± 12.6
Median	47.7
Range	18.53–62.2
MCS-12 score Mean ± SD	51.7 ± 10.2
Median	55.5
Range	25.6–68.8
	No. (%) of Patients
Selected drugs reported taken at the time of interview	
Aspirin (or other antiplatelet drug)	72 (80.9)
β-Blocker	40 (44.9)
ACE inhibitor	52 (58.4)
Cholesterol-lowering agent	66 (74.2)
Events occurring between hospital discharge for index myocardial infarction and time of survey	
Rehospitalization for cardiac problem	14 (15.7)
Stroke	1 (1.1)
Schedule catheterization	8 (9.0)
Scheduled PCI	4 (4.5)
Scheduled CABG	2 (2.3)
Unscheduled catheterization	4 (4.5)
Unscheduled PCI	3 (3.4)
Unscheduled CABG	1 (1.1)
Subsequent myocardial infarction	3 (3.4)
Stress test	20 (22.5)
Revascularization procedure (CABG or PCI) during hospitalization for index myocardial infarction or during interim period	69 (77.5)

PCS-12 = Physical Component Summary; MCS-12 = Mental Component Summary; ACE = angiotensin-converting enzyme; PCI = percutaneous coronary intervention; CABG = coronary artery bypass graft surgery.

^a1 = not compliant; 5 = very compliant.

hyperlipidemia. Nearly 30% had a previous myocardial infarction. Over three fourths of this population had a BMI that classified them as overweight or obese. During hospitalization for the index myocardial infarction, almost three quarters of patients underwent angioplasty or CABG.

Table 2 provides information obtained at the time of the telephone interview, approximately 7 months after discharge for the index myocardial infarction. Most respondents reported taking aspirin and lipid-lowering therapy. Over half

reported taking an ACE inhibitor, whereas less than half were taking a β-blocker. On average, these patients took nearly six drugs/day. The mean ± SD self-reported compliance scale score was 4.8 ± 0.4, indicating less than perfect drug compliance during the 4 weeks before the survey. The median PCS-12 score was 47.7, and the median MCS-12 score was 55.5. During the time between discharge from the hospital for the index myocardial infarction and the telephone survey, 16% of patients were rehospitalized for a cardiac problem; more than 11% reported undergoing a revascularization procedure (scheduled or unscheduled angioplasty or CABG), and 3% reported a subsequent myocardial infarction.

Return to Work Analysis

Of the 89 patients who worked before the index myocardial infarction, 21 (23.6%) had not returned to work at the time of the follow-up telephone survey. Table 3 shows results of the univariate analyses of patient, disease, and treatment characteristics and the percentage of respondents who returned to work within the interim period. Patients were less likely to return to work after the index myocardial infarction if they had experienced an earlier myocardial infarction, had heart failure, had a positive stress test result, or had undergone CABG. Likewise, those who did not return to work had more comorbidity, more prescribed drugs, or lower PCS-12 scores (lower physical health-related quality of life) at the time of the interview.

Perceived Work Performance

Of the 68 patients who returned to work, 66 provided complete perceived work performance data. The mean ± SD WPS score was 3.6 ± 0.52. The median score was 3.8, and the range was 1.83–4.0. A score of 1.0 indicates poorest perceived performance, and a score of 4.0 indicates highest perceived performance. A ceiling effect was present, with nearly 32% of WPS scores reaching the highest performance level. No respondent achieved the lowest possible score, but three (4.5%) respondents scored 2.0 or less. The Cronbach α for the WPS was 0.73, indicating good internal reliability.

Table 4 presents results of the univariate analyses of patient, disease, or treatment characteristics and WPS scores. Characteristics associated with significantly higher WPS scores were ejection fraction of 40% or greater at the time of discharge, lack of history of myocardial

Table 3. Univariate Analyses of Patient and Disease Characteristics for Those Who Did Not Return to Work versus Those Who Returned to Work^a

Variable	Patients Who Did Not Return to Work (n=21)	Patients Who Returned to Work (n=68)	p Value
Median no. of other illnesses	3.0	1.0	<0.001 ^b
Median no. of other drugs	7.0	5.00	0.004 ^b
Median PCS-12 score	30.8	50.7	<0.001 ^b
No. (%) of Patients			
Previous myocardial infarction			
No	7 (33.3)	56 (82.4)	<0.001 ^c
Yes	14 (66.7)	12 (17.6)	
History of heart failure			
No	14 (66.7)	66 (97.1)	<0.001 ^c
Yes	7 (33.3)	2 (2.9)	
History of positive stress test			
No	15 (71.4)	65 (95.6)	0.005 ^c
Yes	6 (28.6)	3 (4.4)	
History of CABG			
No	15 (71.4)	64 (94.1)	0.01 ^c
Yes	6 (28.6)	4 (5.9)	

PCS-12 = Physical Component Summary; CABG = coronary artery bypass graft surgery.

^aIncludes only sets that were statistically significant.

^bWilcoxon rank sum test.

^c χ^2 test.

Table 4. Univariate Analyses of Patient and Disease Characteristics and Perceived Work Performance Scale Score for 66 Respondents^a

Variable	Median Work Performance Scale Score	p Value
Ejection fraction		0.02 ^b
< 40% (n=17)	3.3	
≥ 40% (n=49)	3.8	
Previous myocardial infarction		0.01 ^b
No (n=54)	3.8	
Yes (n=12)	3.4	
PCI during hospitalization for index myocardial infarction		0.02 ^b
No (n=20)	3.5	
Yes (n=46)	3.8	
Reported days missed from work		0.002 ^b
None (n=55)	3.8	
1 or more (n=11)	3.3	

PCI = percutaneous coronary intervention.

^aIncludes only variable sets that were statistically significant.

^bWilcoxon rank sum test.

infarction before the index event, percutaneous coronary intervention procedure during hospitalization for the index myocardial infarction, and no missed days of work.

Missed Days from Work

Fifty-five (83%) patients responded that they did not miss any days from work during the 4-week period before the survey. For the remaining patients, the mean \pm SD number of days missed from work during the 4 weeks before the questionnaire was 0.74 ± 1.17 , the median was 0.0, and the range was 0–10 days. Table 5 lists the results of the univariate analysis for patient, disease, and treatment characteristics and missed days from work. Patients missing days of work had lower PCS-12 scores (physical health-related quality of life) and as a group had more hospitalizations for cardiac causes during the interim period than patients who did not miss work.

Discussion

Becoming disabled due to cardiovascular disease may affect a person's sense of well-being.^{35, 36} To a large extent, many people secure their sense of self-worth from their job, and social values tend to reinforce this notion.²¹ Myocardial infarction may alter a person's functional status and sense of well-being in many measurable ways. The decision to return to work after an acute medical event such as a myocardial infarction is influenced by many factors, some

Table 5. Univariate Analyses of Patient and Disease Characteristics and Days Missed From Work versus Not Missing Any Days from Work in the Past 4 Weeks

Variable	Missed at Least 1 Day of Work (n=11)	Missed No Days of Work (n=55)	p Value
Median PCS-12 score	42.0	52.6	0.05 ^a
No. (%) rehospitalized for cardiac reason during the interim period	4 (44.4)	4 (8.2)	0.02 ^b

PCS-12 = Physical Component Summary.

^aWilcoxon rank sum test.

^b χ^2 test.

medically related and others personal or work related. These same factors may affect other work-related outcomes, such as perceived work performance and absenteeism. We examined the influence of a set of variables that are commonly available in health-system records as well as those that could be obtained by a survey.

Return to Work

The percentage of patients who had returned to work at 7 months after the index myocardial infarction in our study (76%) is in the range reported by various studies in the literature (50–90%).^{15–24} Return to work was influenced by a set of variables that represent preexisting cardiovascular disease (history of a myocardial infarction before the index myocardial infarction, history of positive stress test, history of CABG, and history of heart failure). As well, impaired physical-related health was associated with the outcome of not returning to work; patients who did not return to work had lower PCS-12 scores than those who did return to work. This relationship was also observed in a study reported in 2001.⁶ That study found that PCS-12 scores were lower at 2 years after a myocardial infarction in those who did not return to work than in those who resumed working. Others have documented that cardiac complications and rehospitalization after the index myocardial infarction are also related to the decision against returning to work.¹⁶

It has been estimated that 40–50% of cases of failure to return to work cannot be explained by physical illness alone.³⁷ Numerous studies have shown significant associations between the presence of depressive symptoms and not returning to work.^{20, 38, 39} The MCS-12 scale of the SF-12 measures the effect of depressive and anxiety-related symptoms on functioning and sense of well-being. In the 2001 study, MCS-12 scores were lower in patients who did not return

to work within 2 years after a myocardial infarction than in patients who resumed work during the same time period.⁶ In our study, MCS-12 scores did not demonstrate this relationship.

Other variables that might influence a patient's decision to return to work have been examined in studies of patients with coronary artery disease who underwent revascularization procedures.^{40, 41} Clinical variables include presence of heart failure, presence of extracardiac vascular disease, and complaints of symptoms. Patient characteristics associated with lower return to work rates include less than 12 years of education, low level of self-efficacy to return to work, older age, minority race, and feelings of being handicapped by the disease. Work-related variables associated with lower return to work include blue-collar job, low work satisfaction, and low subjective ratings of physical fitness for work. Psychosocial variables appear to be just as influential as clinical variables in patients' decisions about returning to work.²⁰

Work Performance and Absenteeism

Reduction in health-related productivity can be conceptualized as increased absenteeism and/or lower perceived work performance. Health status is an important underlying factor enhancing or maintaining work productivity.⁴² Self-reported work performance, a measure of a person's perceived role functioning while at work, is a concept important to workers as well as employers. Several terms define self-reported or perceived work performance. The term presenteeism describes employees who are physically present at their jobs but experience decreased productivity and below-normal work quality. Some experts refer to this concept as "impairment days." The concept underlying presenteeism is that of active employee engagement in work. It is inclusive, with a focus on cognitive, emotional, and

behavioral engagement during work.⁴³ Aside from cancer, medical conditions associated with the largest conditional number of impairment days are heart disease and high blood pressure.²⁵

Our findings indicate that several patient and disease characteristics affect perceived work performance. For example, patients who had a higher ejection fraction at the time of discharge or shortly thereafter reported higher work performance than those with a lower ejection fraction. Patients who had not experienced an earlier myocardial infarction also had higher perceived work performance than their counterparts. Having a PTCA revascularization procedure during or immediately after hospitalization for the index myocardial infarction was associated with higher work performance for those who returned to work. Other studies have reported similar findings.^{27, 28, 40, 44} Our study differs in that it used a population-based sample, whereas most other reports on work performance have used data from randomized controlled trials.

Patients who reported no work absences also reported higher work performance than their counterparts. Absenteeism was associated with lower physical-related and health-related quality of life. Patients who reported being rehospitalized during the interim period were also more likely than other patients to report absences, an intuitive finding. Of note, patients' sex did not affect any of the work-related outcomes evaluated in our study. In contrast, another research group found that women reduced work-related activities after myocardial infarction more than men at 3 months after myocardial infarction.⁴⁵

Our study has several limitations. Its cross-sectional design allows assessments of association but not of causality. Since there was no baseline assessment, it cannot be concluded that the myocardial infarction resulted in decreased work performance. A limitation common in population-based studies is assessment of disease severity at the time of the survey. For this study, the ejection fraction was determined during the hospital stay or during the immediate post-discharge period, not at the time of the survey. Several other patient characteristics that might have affected outcomes were not obtained at the time of the survey. These include symptomatology, cardiac rehabilitation status, and presence of psychosocial disorders. Likewise, the study did not address certain work-related variables that might have affected outcomes. Examples are job classification, including white-collar versus blue-collar status; educational

attainment; income; degree of family support (other than number of other individuals the patient lives with, which we measured); and patients' belief that work was related to the myocardial infarction. Finally, we were unable to determine patients' disability insurance coverage, a variable that may have affected the decision to return to work.

Conclusion

Our study identified patient and disease characteristics associated with patients' ability to return to work, their perceived work performance, and absenteeism. This small study demonstrates the need for a larger, longitudinal study that addresses health beliefs, psychosocial assessment, treatment, and other job or patient factors that may influence work-related outcomes.

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Appendix 1. Work Outcomes Measures

Work Performance Scale

Whether you work inside or outside of your home, in the past 4 weeks, have you:

- a. Done as much work as others doing similar jobs?
- b. Worked for short periods of time or taken frequent rests because of your health?
- c. Worked your regular number of hours?
- d. Done your job as carefully and accurately as others with similar jobs?
- e. Worked at your usual job, but with some changes because of your health?

Responses for items a-e were the following: all of the time, most of the time, some of the time, and none of the time.

If you worked outside the home, in the past 4 weeks have you feared losing your job because of your health? Responses were the following: all of the time, most of the time, some of the time, none of the time, and not applicable.

Days missed from work

In the past 4 weeks, how many days have you missed from work, school, or your usual activities because of your health? These data were collected as a continuous variable and then dichotomized to 0 or ≥ 1.