

**PERCEIVED RETURN-TO-WORK PRESSURE
FOLLOWING CARDIOVASCULAR DISEASE IS ASSOCIATED WITH AGE,
SEX, AND DIAGNOSIS: A NATIONWIDE COMBINED SURVEY- AND
REGISTER-BASED COHORT
STUDY¹**

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Abstract

Return to work is a key rehabilitation goal for people with cardiovascular disease (CVD) because employment matters to individuals and societies. However, people recovering from CVD often struggle with returning to work and maintaining employment. To identify people in need of vocational counselling, we examined the probability of feeling under pressure to return to work following CVD. We conducted a combined survey- and register-based study in a randomly selected, population-based cohort of 10,000 people diagnosed with atrial fibrillation, heart failure, heart valve disease, or ischaemic heart disease in 2018. The questionnaire covered return-to-work items, and we reported the probabilities of feeling under pressure to return to work with 95% confidence intervals (CIs) in categories defined by sex, age, and CVD diagnosis. The survey response rate was 51.1%. In this study, we included 842 respondents (79.7% men) aged 32–85 years, who had returned to work following a sick leave. Overall, 249 (29.7%) had felt pressure to return to work. The probability of feeling under pressure to return to work ranged from 18.3% (95% CI: 13.1–24.6) among men aged > 55 years with atrial fibrillation to 51.7% (95% CI: 32.5–70.6) among women aged ≤ 55 years with atrial fibrillation. In addition, 66.0% of all respondents had not been offered vocational rehabilitation, and 48.6% of those who reported a need for vocational counselling had unmet needs. Survey responses also indicated that many respondents had returned to work before feeling mentally and physically ready. A substantial proportion of people with cardiovascular disease feel

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under pressure to return to work, and this pressure is associated with age, sex, and diagnosis. The results show that vocational rehabilitation must be improved and emphasize the importance of ensuring that cardiac rehabilitation programmes include all core rehabilitation components.

Keywords: Cardiac rehabilitation, Cardiovascular disease, Return to work, Employment, Vocational counselling, Vocational rehabilitation.

Introduction

Despite improved survival, cardiovascular disease (CVD) remains a leading cause of mortality and increased disease burden in Europe and is increasingly common in the working-age population. In Denmark, more than 56,000 people are diagnosed with CVD each year, and according to The Danish Heart Statistics approximately 36% of these are between 35 and 65 years old. Hence, a great proportion of people living with CVD is of working-age, and for these people facilitating return to work is a key rehabilitation goal, because employment is highly valued by individuals and societies.

Cardiac rehabilitation may facilitate return to work, and international recommendations include vocational counselling as part of comprehensive rehabilitation programmes. However, most European countries do not have clear guidelines, and more emphasis on vocational rehabilitation is needed. The aim of cardiac rehabilitation is to improve health and quality of life and allow people, as far as possible, to return to their activities of daily living, and for employed people with CVD work resumption is an important aspect of returning to normality. Return to work is associated with better psychosocial well-being and health related quality of life, and is of great importance for social relationships, income and purpose in life. Return to work is a complex process shaped by a range of factors including personal characteristics, the severity of the disease, work-related factors (e.g., job position and working conditions), national compensation policies, and the structure of the healthcare system (e.g., access to rehabilitation programmes and vocational counselling). Previous studies have demonstrated that CVD affects the ability to work and that return-to-work rates are moderate with variation across countries and patient groups. Risk factors associated with failure to return to work after CVD include female sex, older age, severity of the disease, comorbidities, lower educational level, and low income. Additionally, type of employment and occupational requirements, such as white or blue-collar work, night shifts, and the ability to commute shape return-to-work. Researchers have also documented that many people with CVD

struggle with sustaining employment after initial return to work, have difficulties with returning to work at the pre-CVD level, and experience a number of barriers for returning to work, such as physical and mental incapacity, co-morbidities, unfavorable terms of employment, and motivational problems.

Struggles with returning to work and sustaining employment may be due to insufficient vocational rehabilitation, which results in patients feeling compelled to return to work while they are still recovering. To support people who are returning to work, help them continue their employment, and provide cardiac rehabilitation, we need to identify those in need of vocational rehabilitation. To improve our understanding of the return-to-work experience of people with CVD, we conducted a nationwide survey and linked the responses with register data. We investigated the likelihood of patients feeling under pressure to return to work and investigated whether this was influenced by sex, age, or CVD diagnosis. The results provide valuable insights, which may be used to improve targeted vocational rehabilitation and facilitate return to work after CVD.

Methods

Study design and population We conducted a combined survey- and register-based cohort study: data collected from a nationwide population- based survey were linked to data from several nationwide administrative registries. In Denmark, all residents are assigned a unique and permanent personal identification number, which is available in all national registries and allows accurate data to be assigned to each individual. The Danish National Patient Register contains information on all hospital admissions, in accordance with the tenth revision of the International Classification of Diseases (ICD-10) codes. The patients in this study were selected from the Danish National Patient Register and formed a random population- based cohort of 10,000 people who had a hospital admission (in- or outpatient contact) in 2018 with a discharge diagnosis of atrial fibrillation (AF), heart failure (HF), heart valve disease (HVD) or ischaemic heart disease (IHD). Because of the overall low incidence of CVD in younger individuals, and because we wanted to include people of working-age with a foothold on the labour market, patients were included if they were ≥ 35 years of age. In addition, survey participants were residents in Denmark and alive when the cohort was established in August 2020. In this study, we included respondents who reported being employed (including self-employment, part-time employment etc.) at the time of diagnosis and who had returned to work following a sick leave due to their diagnosis in 2018.

Com base no texto **“Perceived return-to-work pressure following cardiovascular disease is associated with age, sex, and diagnosis: a nationwide combined survey- and register-based cohort study”**, responda às questões de 1 a 5.

Questão 01

Com base no artigo, responda às questões:

- a) Qual o objetivo da pesquisa? (1,0)
- b) Como é descrita a metodologia para geração de dados? (1,0)

Questão 02

- a) O que os resultados apontam? (1,0)
- b) Qual conclusão chega a pesquisa? (1,0)

Questão 03

- a) Qual o objetivo da reabilitação cardíaca? (1,0)
- b) Quais fatores de risco estão relacionados à dificuldade de retorno ao trabalho após uma doença cardíaca cardiovascular? (1,0)

Questão 04

- a) Quais são as palavras-chaves do artigo? (1,0)
- b) Os seguintes números referem-se às quais informações (1,0):
 - 36% –
 - 56,000 –

Questão 05

Quais foram os critérios para a seleção dos pacientes para a pesquisa? (2,0)

Espelho das Respostas

Questão 01

Com base no artigo, responda às questões:

a) Qual o objetivo da pesquisa? (1,0)

Espera-se que o (a) candidato (a) entenda que o objetivo da pesquisa é entender a pressão que trabalhadores sofrem para retornar ao labor após uma doença cardiovascular.

b) Como é descrito a metodologia para geração de dados? (1,0)

Espera-se que o (a) candidato (a) compreenda que o estudo fez uma em pesquisa com recorte populacional de 10.000 pessoas diagnosticadas com fibrilação atrial, insuficiência cardíaca, doença cardíaca ou doença cardíaca isquêmica em 2018. Utilizou-se um questionário abrangeu itens de retorno ao trabalho e as probabilidades de sentir-se sob pressão, retornar ao trabalho com confiança de 95% em categorias definidas por sexo, idade e diagnóstico de doença cardíaca cardiovascular.

Questão 02

a) O que os resultados apontam? (1,0)

Espera-se que o (a) candidato (a) perceba que a taxa de resposta da pesquisa foi de 51,1%. No estudo foram incluídos 842 entrevistados (79,7% homens) com idade entre 32 e 85 anos, que retornaram ao trabalho após uma licença médica. No geral, 249 (29,7%) sentiram pressão para voltar a trabalhar. A probabilidade de se sentir pressionado para retornar ao trabalho variou de 18,3% (entre os homens com idade 55 anos com fibrilação atrial para 51,7% entre mulheres com idade \leq 55 anos. Além disso, 66,0% de todos os entrevistados não receberam reabilitação profissional e 48,6% daqueles que relataram uma necessidade de aconselhamento vocacional tiveram suas necessidades não atendidas. As respostas da pesquisa também indicaram que muitos entrevistados voltaram ao trabalho antes de se sentir mental e fisicamente pronto.

b) Qual conclusão chega a pesquisa? (1,0)

Espera-se que o (a) candidato (a) aponte que uma proporção substancial de pessoas com doenças cardiovasculares se sentem pressionadas a retornar ao trabalho, e essa pressão está associada à idade, sexo e diagnóstico. Os resultados mostram que a reabilitação profissional deve ser melhorada e enfatizam a importância de garantir que os programas de reabilitação cardíaca incluam todos os componentes.

Questão 3

a) Qual o objetivo da reabilitação cardíaca? (1,0)

Espera-se que o (a) candidato (a) entenda que a reabilitação cardíaca objetiva melhorar a saúde e a qualidade de vida e permitir que as pessoas, na medida do possível, retornem às suas atividades da vida diária.

b) Quais fatores de risco estão relacionados à dificuldade de retorno ao trabalho após uma doença cardíaca cardiovascular? (1,0)

Espera-se que o (a) candidato (a) infira que os fatores incluem mais o sexo feminino, idade, gravidade da doença, comorbidades, nível educacional e renda mais baixo, o tipo de emprego, turno de emprego e incapacidade física e mental.

Questão 04

a) Quais são as palavras-chaves do artigo? (1,0)

Espera-se que o (a) candidato (a) compreenda que as palavras-chaves são reabilitação cardíaca, doença cardiovascular, retorno ao trabalho, emprego, aconselhamento vocacional e reabilitação vocacional.

b) Os seguintes números referem-se às quais informações (1,0):

- 36% – *Espera-se que o (a) candidato (a) compreenda que a porcentagem refere ao número de pessoas entre 35 e 65 anos.*
- 56,000 – *Espera-se que o (a) candidato (a) infira que é o número de pessoas que são diagnosticadas com doença cardiovascular a cada ano.*

Questão 05

Quais foram os critérios para a seleção dos pacientes para a pesquisa? (2,0)

Espera-se que o (a) candidato (a) infira que os pacientes da pesquisa foram selecionados por meio do Registro Nacional de Pacientes Dinamarquês e formaram uma corte aleatória de base populacional de 10.000 pessoas que tiveram uma internação hospitalar (contato ambulatorial) em 2018 com diagnóstico de alta de fibrilação atrial (FA), insuficiência cardíaca (IC), doença valvular cardíaca (HVD) ou doença cardíaca isquêmica (DIC). Devido à baixa incidência geral de DCV em indivíduos mais jovens, e porque a pesquisa incluiu pessoas em idade ativa com presença no mercado de trabalho, os pacientes foram incluídos se tivessem ≥ 35 anos de idade. Além disso, os participantes da pesquisa eram residentes na Dinamarca e estavam vivos quando a pesquisa foi estabelecida em agosto de 2020. Neste estudo, incluíram entrevistados que relataram

estar empregados (incluindo trabalho autônomo, emprego de meio período etc.) no momento do diagnóstico e que retornaram ao trabalho após uma licença médica devido ao seu diagnóstico em 2018.