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## **Sexual counselling of cardiac patients in Europe: Culture matters**

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## **Abstract**

*Background:* Sexual problems are common amongst cardiac patients, and concerns may arise when resuming sexual activities after a cardiac event. Sexual counselling is therefore indispensable. Culture is an identified barrier to talking about sex, but research is lacking on whether and how culture influences nurses in providing sexual counselling.

*Design:* This cross-sectional descriptive study assessed four areas related to sexual counselling provided by cardiovascular nurses. We investigated the impact of culture on these areas by surveying cardiovascular nurses living in Denmark, Norway and two regions of Belgium—Flanders, Dutch-speaking region and Wallonia, French-speaking region.

*Methods:* Overall, 819 participants were recruited as they attended cardiovascular nursing congresses in Denmark, Norway and Belgium. Subjects completed the Undertaking Nursing Interventions Throughout Europe (UNITE) sexual counselling questionnaire, measuring practice, responsibility, confidence and perceived comfort of patients. Controlling for demographic, educational and professional covariates, we performed multiple linear regression analysis to determine the impact of culture on sexual counselling.

*Results:* All four subscale scores were independently associated with culture. Danish nurses counselled patients significantly more often, reported feeling more responsibility and confidence and estimated more comfort in patients than Norwegian, Flemish and Walloon nurses.

*Conclusions:* This study showed that culture matters with respect to sexual counselling for cardiac patients. Interventions should be developed improving sexual counselling of cardiac patients. Educational courses and training of healthcare professionals on sexual counselling should be more sensitive to sociocultural differences. Cross-cultural perspectives may bias

attitudes of professionals as they deal with concerns of cardiac patients about resuming sexual activity.

**Abstract word count:** 250 words

**Keywords**

Sex counselling, sexuality, nurse attitudes, sexual dysfunction, cardiovascular nursing, culture

**What is already known about this topic?**

- Cardiac patients often experience sexual problems and are concerned about resuming sexual activities.
- In healthcare teams, cardiovascular nurses can play an imported role in providing sexual counselling, but do not necessarily perform this in day-to-day clinical practice.
- Prior studies have identified several barriers in talking about sex.

**What does this paper add?**

- This study showed that cultural differences between European regions influence the practice, responsibility and confidence of cardiovascular nurses with regard to sexual counselling.
- Irrespective of the variability across the regions, provision of sexual counselling to cardiac patients was rather low.
- Cardiovascular nurses reported modest levels of knowledge and confidence in providing sexual counselling, showing a need for additional education and training.

## Introduction

Patients who have had a cardiovascular event frequently report experiencing sexual dysfunction that results from decreased exercise tolerance, fatigue, medication side-effects, decreased self-esteem, or anxiety <sup>(1)</sup>. Male and female cardiac patients often report a marked decrease or complete cessation of sexual activities <sup>(1-5)</sup>, a loss of interest in sex <sup>(1-3)</sup> and a decreased level of satisfaction during sex <sup>(1)</sup>. Furthermore, more than 80% of men and women with heart failure experience erectile dysfunction (ED) or female sexual arousal disorder, respectively<sup>(6;7)</sup>.

Many patients with cardiac conditions have concerns about resuming sex because of fear of death, deterioration of their condition, or triggering of an implantable cardioverter defibrillator (ICD) during sexual intercourse <sup>(1;8-10)</sup>. Therefore, patients have expressed their need for information and education concerning the physiological requirements of sex, treatment options for ED and information on performing sex in a safe manner in the context of their cardiac condition <sup>(11;12)</sup>. Several studies, however, report that about 50-60% of patients or partners do not receive information about resuming sexual activities after a cardiac event <sup>(3;10)</sup>. Amongst other healthcare professionals, cardiovascular nurses can play a pivotal role in providing sexual counselling to cardiac patients, because they are frequently the frontline healthcare providers for hospitalised patients.

Although nurses feel responsible for providing sexual counselling, they rarely do so in daily practice <sup>(3;10;12-21)</sup>. Possible reasons for insufficient sexual counselling are nurses lack time, education, knowledge, skills and awareness; they feel uncomfortable discussing this subject <sup>(1;22)</sup>; they are afraid that patients might become upset, embarrassed, or offended when discussing sex <sup>(13;18;21;23-25)</sup>; or they are culturally inhibited <sup>(21;22;26)</sup>. Since Europe comprises multiple cultures, we assume that substantial differences exist in how healthcare workers talk about sex to their

patients. This may lead to variable management for cardiac patients in some European regions. However, research on the impact of culture on the provision of sexual counselling in Europe is lacking. We therefore set out (i) to investigate the practice, responsibility, confidence and estimated comfort of patients related to sexual counselling by cardiovascular nurses living in four different regions of Europe—Denmark, Norway, Flanders (Dutch-speaking region of Belgium) and Wallonia (French-speaking region of Belgium); and (ii) to explore the relative impact of culture on sexual counselling.

## **Methods**

### *Study population and data collection*

Data were collected during several congresses on cardiovascular nursing, which were held in Denmark, Norway and Belgium. Danish nurses (N=166) were invited during the Symposium for Danish Cardiovascular Nurses, which was held at the Copenhagen University Hospital in September 2009. Additional data were collected from two cardiac units of the same hospital (N=48). Norwegian nurses (N=275) were accosted during the Norwegian National Spring Meeting on Cardiovascular Nursing, which was held in Trondheim in May 2010. Belgian data were collected in two regions: Flanders (Dutch-speaking region of Belgium) and Wallonia (French-speaking region of Belgium). We approached Dutch-speaking nurses (N=430) during the Third Autumn Meeting for Cardiovascular Nursing, which was held in Ghent in November 2009; and French-speaking nurses (N=215) during the Third Autumn Meeting for Cardiovascular Nursing, which was held in Liège in October 2009.

Survey forms were distributed at the beginning of the congresses and delegates were asked to fill out the forms and return them that same day in special collection boxes. Hence, a

total number of 1128 cardiovascular nurses were invited to participate in the study. This study was performed according to the principles outlined in the Declaration of Helsinki.

### *Questionnaire*

We employed a questionnaire previously developed by the Undertaking Nursing Interventions Throughout Europe (UNITE) research group of the European Society of Cardiology <sup>(15)</sup>. This questionnaire was based in part on instruments developed by Steinke and Patterson-Midgley <sup>(14)</sup> and Waterhouse <sup>(27)</sup>. The UNITE sexual counselling instrument consists of 32 items, which can be categorised into four subscales: *practice* (eight items; range of subscale score: 0-32); *responsibility* (five items; range of subscale score: 0-20); *perceived confidence and knowledge of nurses* (5 items; range of subscale score: 0-20); and *estimated comfort of patients* (4 items; range of subscale score: 0-16). In addition to the items of these four subscales, 10 questions on the content of sexual counselling were added <sup>(14)</sup>. The questionnaire's content and scoring system is described in detail elsewhere <sup>(15)</sup>. Using standard translation procedures for psychometric instruments, we had the questionnaire translated from English into Dutch, French, Danish and Norwegian.

Using a specific form, we collected data about the respondents' demographics (age, gender, marital status, country of residence); education (highest level of nursing education, continuing education in sexual counselling); and professional characteristics (current nursing practice area, position, years of experience as a nurse/cardiac nurse).

### *Data analysis*

Data were analysed using Statistical Package for the Social Sciences 17.0 (SPSS Inc., Chicago, IL). Nominal and ordinal data were presented as absolute numbers and percentages. Because

continuous data were not normally distributed, they were presented using medians and quartiles. We calculated the total scores of the four subscales if a minimum of 80% of items was completed by the respondents; these scores were presented as medians and quartiles. The Chi<sup>2</sup> test, or Fisher's exact test if assumptions for the use of Chi<sup>2</sup> test were violated, were used to compare nominal data across the four groups. The Kruskal-Wallis test was used to compare median scores on the four subscales for nurses living in the four European regions.

To determine whether cultural differences had an impact on practice, responsibility, confidence and estimated comfort of patients, we performed multiple linear regression analysis (epidemiological approach). If possible and relevant, nominal data containing more than two categories were dichotomised. Nominal data that could not be dichotomised were transformed into dummy variables. All assumptions for the linear regression analyses were tested for each model. All tests were two-sided, and a p-value of 0.05 was used as cut-off for statistical significance.

## **Results**

### *Characteristics of study population*

In Denmark, 175 completed questionnaires were returned (response rate=81.8%), whereas in Norway, 215 completed questionnaires were returned (response rate=78.2%). In Flanders, Belgium, 289 completed questionnaires were returned (response rate=67.2%), whereas in Wallonia, 140 completed questionnaires were returned (response rate=65.1%). Hence, the overall sample consisted of 819 nurses. Table 1 summarises the demographic, educational and professional characteristics of the respondents from the four regions.

*Comparison of practice, responsibility, confidence and estimated comfort of patients*

The median subscale scores for all four subscales were significantly higher for Danish nurses than for Norwegian, Flemish and Walloon nurses. This result indicated that, when comparing practice, responsibility and confidence, Danish nurses performed significantly better than the other three groups of nurses. The median subscale scores, however, were only slightly better for Danish nurses compared to Norwegian nurses. Furthermore, the estimated comfort of cardiac patients during sexual counselling was equal for Danish and Norwegian nurses, and for Flemish and Walloon nurses. Nonetheless, a statistically significant difference was found amongst the four groups.

<b>PLEASE INSERT TABLE 2 ABOUT HERE</b>
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*Culture as a correlate of practice, responsibility, confidence and perceived comfort of patients*

After controlling for all possible demographic, educational and professional covariates of cardiac nurses, multiple linear regression analysis revealed that practice, levels of responsibility, levels of confidence and estimated comfort of patients with respect to sexual counselling were independently associated with culture (Table 3). Danish nurses scored significantly higher with regard to providing sexual counselling than their Norwegian, Flemish and Walloon colleagues. They also reported significantly higher levels of perceived responsibility and more confidence than their counterparts from other regions. Regarding the estimated level of comfort of patients during sexual counselling, Flemish and Walloon nurses scored significantly lower than Danish nurses. We observed no significant difference between Danish and Norwegian nurses in terms of estimated comfort of patients. Other factors that played a role in sexual counselling were nurses'

gender, participating in continuing education involving sexual counselling, higher level of nursing education, experience as a nurse/cardiac nurse, practice area and work position (Table 3).

<b>PLEASE INSERT TABLE 3 ABOUT HERE</b>
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## **Discussion**

This is the first study to investigate the impact of culture on the provision of sexual counselling to cardiac patients. We compared practice, responsibility, confidence and estimated comfort of patients during sexual counselling, as reported by cardiovascular nurses living in Denmark, Norway, Flanders and Wallonia.

After controlling for all available covariates, we found that practice, responsibility, confidence and estimated comfort were independently associated with culture. Danish nurses performed significantly better on all four subscales than Norwegian, Flemish and Walloon nurses, but only a slight difference was observed between Danish and Norwegian nurses. Cross-cultural attitudes towards sexuality could explain this difference.

Scandinavia is often considered to be amongst the most sexually liberated regions in the world<sup>(28-30)</sup>. In Denmark, attitudes towards people's sexuality are rather relaxed, and sexuality is not a taboo subject. In 1970, sexual education was made compulsory for general schools. Since 1972, voluntary sexological courses for healthcare professionals have been provided at several hospitals, institutions for higher education, and through the Danish Association for Clinical Sexology. In Norway, which is also a Scandinavian country, attitudes towards sexuality are slightly different compared to that in Denmark. Norway has a liberal social and moral climate, and general public attitudes towards sexuality are positive<sup>(31)</sup>. Although sex education was specified in teaching curricula since 1974, education varies across public schools mainly because

policy is vague <sup>(31)</sup>. Because of the relaxed attitudes towards discussing sex and because of the governments' emphasis on starting sex education at an early age, it is not surprising to observe that Norwegian and especially Danish nurses feel more confident, knowledgeable and comfortable about providing sexual counselling.

In Belgium, public attitudes towards sexuality and sex education have become more liberal. However, a paedophilia scandal in 1996 caused Belgians to adopt a more cautious attitude towards sexuality <sup>(31)</sup>. Furthermore, substantial differences exist in the provision of sex education in schools. Belgium has three linguistic communities: Dutch-, French- and German-speaking. Due to decentralization of political power and decision making, different communities in Belgium possess different regulations for sex education. In Flanders, sex education has been a part of school objectives since 2000. By contrast, in the French-speaking and German-speaking communities no specific objectives on sex education have been set <sup>(31)</sup>. This situation can explain why Belgian nurses perform worse in sexual counselling than their Scandinavian counterparts. Furthermore, the differences in statutory requirements for sex education likely has resulted in different cultural attitudes towards sexuality in Dutch- and French-speaking nurses living in Belgium <sup>(31-33)</sup>. This may explain the differences in scoring on sexual counselling by Dutch-speaking and French-speaking nurses.

Although variability in sexual counselling was detected across the four European regions, general provision of sexual counselling was fairly low in our total sample of 819 nurses. This finding is in line with previous studies, which concluded that nurses do not routinely inquire about their patients' sexuality and that they provide little information and guidance to individuals about resuming sex <sup>(13;16-21)</sup>. For instance, a study conducted in Kansas, USA showed that 33% of nurses offered to discuss sexuality with less than 2% of patients <sup>(13)</sup>. Another study, conducted

with 157 mainly European nurses attending a congress of the ESCs Council on Cardiovascular Nursing and Allied Professions, reported that only about 11% of cardiovascular nurses frequently assessed patients' sexual health in their nursing practice <sup>(15)</sup>.

Although in our study very few cardiac nurses provided sexual counselling, the nurses agreed that they were responsible for providing sexual counselling. This finding was also reported by other studies <sup>(15;21;24)</sup>. Indeed, Jaarsma and colleagues found that, although 87% of cardiac nurses agreed that it is a nurse's responsibility to provide sexual counselling, only 11% of them frequently assessed patients' sexual health <sup>(15)</sup>.

Furthermore, our study revealed that the cardiac nurses had a modest level of knowledge and confidence when it came to providing sexual counselling. This might be due to the possibility that nurses have limited education on sexual counselling. Indeed, a prior study showed that 81% of nurses reported that their basic nursing education contained little or no lecture content on sexuality <sup>(13)</sup>. Continuing education may improve this situation. In our sample, 18.1% of Norwegian and 12% of Danish nurses took part in a supplementary workshop on sexual counselling, whereas only 2.1% of Belgian nurses took part in such specialised courses.

This study involved a large sample of European cardiovascular nurses. Response rates were high, ranging from 65% to 80%. Furthermore, we used an instrument that was previously developed and has shown to be appropriate for its purpose. However, some limitations should be kept in mind. First, irrespective of the high response rate and large sample size, our sample is not representative of all European cardiovascular nurses. We only recruited participants from four European regions. Replication of this study in other regions, inside and outside Europe, therefore is advocated. Second, we only included cardiovascular nurses. It would be interesting to know how nurses working in other care settings, cardiologists, and other healthcare professionals

perform in terms of sexual counselling. Third, although the instrument that we used in the present study was found to be suitable for its intended purpose, no firm data on its reliability and validity has been described. Future studies should scrutinise the psychometric properties of this instrument. Fourth, we focused on experiences and perceptions of nurses, leaving the patients' needs unaddressed.

Cultural differences may also affect the needs of patients with respect to sexual counselling. Patients' opinions in different regions of Europe should be included in future studies. Finally, although we aimed to investigate the impact of culture on multiple aspects of sexual counselling, one could question the use of the term 'culture'. The term 'culture' can indeed be interpreted in several ways and could be defined as a set of shared attitudes, values, goals, and practices that characterises an institution, organisation, or group <sup>(34)</sup>. In this respect, we preferred to use the term 'culture' to express the sociocultural differences that exist between groups of people in their attitude towards sexuality. We do not speak of differences in attitudes based on the nationality of people, because even when people have the same nationality, they can be part of a certain culture within that country. For example, Flemish and Walloon nurses both have the same nationality; however, cultural differences were observed between these two groups in this study. Sociocultural differences between regions within the same country also existed in the study results of this survey.

## **Conclusion**

Although cardiac patients experience numerous sexual problems and concerns, sexual counselling for these individuals generally receives little attention. We investigated sexual counselling as provided by cardiovascular nurses in four European regions and how culture

affects the practice, responsibility, confidence and estimated comfort of patients. We found that culture, indeed, matters. Danish nurses did better than their colleagues from Norway, Flanders and Wallonia in providing sexual counselling to cardiac patients. However, the Danish nurses' performance was only slightly better than that of the Norwegian nurses.

Specific interventions should be developed to improve sexual counselling for cardiac patients by healthcare professionals. Further studies are needed to explore the perceptions and practices of cardiologists in sexual counselling, to evaluate sexual counselling in other European regions, and to investigate to what extent sexual counselling is provided in agreement with patients' expectations and needs. Furthermore, educational courses and training of nurses and other healthcare professionals on providing sexual counselling to cardiac patients should be more sensitive to sociocultural differences. These cross-cultural differences may bias the attitude of professionals as they deal with the sexual concerns of cardiac patients.

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## **Author contributions:**

Eva Goossens: Data analysis and interpretation, drafting article, statistics,

Tone M. Norekval: Concept/design of study, interpretation of data analysis, data collection, critical revision of article

Jane Fearch: critical revision of article

Laurence Hody: Data collection

Siv Storli Olsen: Data collection, critical revision of article

Mette Rosendal Darmer: critical revision of article

Tiny Jaarsma: Concept/design of study, interpretation of data analysis, data collection, critical revision of article

Philip Moons: Concept/design of study, interpretation of data analysis, data collection, critical revision of article, statistics,

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