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## Understanding Nonattendance among Women Invited to a Cardiovascular Preventive Initiative

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**Abstract:** *Dahl M et al. (2022), conducted a study to analysis of women's reasons for refusing cardiovascular screening aiming to achieve a profound understanding of nonattendance by conducted a semi-structured interviews using Anton sky's theory of sense of coherence as a theoretical frame work. Totally 1984 women who are born in 1936, 1941, 1946, 1951 and lived in Denmark were invited to participate in a cardiovascular screening programmed, only 74.3% participated in the study. Result showed that nonattendance was rooted in the women's s social role as caregiver and their individual inner logics, which attested to a line of reasoning without critical reflection. A self-imposed caring role provided the women with meaningfulness in their daily lives, a role they were unwilling to risk by participating. As such, accepting screening was perceived as an unpredictable threat to upholding their social role. Inner logics were used as a strategy to keep life unchanged and uphold their identity. Women who felt healthy, found meaningfulness in relying on their own interpretation of their health status and thus considered screening unnecessarily. Moreover, nonattendance was related to the balance between personal resources and daily caring demands. Conclusion sScreening must be emotionally and cognitively meaningful for women to attend. This study contributed with valuable knowledge on what constitutes public acceptability in relation to cardiovascular preventive initiatives, making it relevant to healthcare professionals and policymakers alike. Involving targeted invitees in designing the screening initiative is likely to facilitate acceptability and encourage participation.*

**Keywords:** *Cardiovascular Disease, Screening, Nonattendance, Supplementary Content Analysis, Women.*



## 1. INTRODUCTION

Screening must be acceptable to invitees in accordance with the screening criteria [1], which were established by the World Health Organization in 1968 [2], we must include nonattendance when evaluating screening effectiveness. Because screening must be acceptable from the standpoint of the invitees, we must monitor nonattendance and investigate the reasons for it while arguing for any screening scheme. Dahl et al. [3] previously demonstrated that women who were asked to decline participation in cardiovascular screening did so because they believed it was personal to them. The authors did state that more research into the causes of nonattendance is required. We conducted an additional analysis in the current study to have a better understanding of the reasons why women believe screening is not personally important. Being personally irrelevant attracted our attention to meaningfulness, and hence to the importance of employing the concept of Sense of Coherence (SOC) as a theoretical framework [4]. As a result, the study's findings offer new, theoretically supported information on the acceptability of cardiovascular screening from the standpoint of a nonattender. Cardiovascular Disease and Screening Despite efforts to develop effective interventions to reduce people's chance of developing the condition and the accompanying costs, cardiovascular disease (CVD) remains a major global cause of morbidity, death, and impaired quality of life [5]. In a number of countries, general health checkups are available at the national level [6,7], and preclinical and obvious cardiovascular disease screening has recently garnered increased attention [8,9]. According to the World Health Organization [10], screening is the alleged finding of an undiscovered ailment in a population that appears healthy and asymptomatic by tests, exams, or other easily conducted and brief procedures. The potential psychological repercussions of screening and health checks [12], the promotion of informed decision-making upon receipt of a screening invitation [13], and the factors that encourage and inhibit attendance [14] have all attracted attention. In a recent thorough study of determinants of attendance in a health check for cardio metabolic disorders in primary care, younger age, less education, smoking, and living alone were connected to nonattendance, albeit the results were not totally conclusive [15]. In contrast, research on cardiovascular screening has indicated that attendance diminishes with age among invitees over the age of 60 [14, 16]. Furthermore, the qualitative findings revealed that nonattendees refused to participate due to low self-perceived susceptibility, negative attitudes toward health checks or preventative acts in general, and a choice to not be concerned about the outcome. As a result, even while nonattendees were aware of the elevated risk associated with cardiovascular risk factors [3, 15], they were under the impression that it could only happen to other people and not to them. According to the findings of Cheong et al. [17], invitees' readiness to consent to screening is dependant on their level of preparedness to deal with the test results, which can include a diagnosis and the need for therapies such as lifestyle and medication changes. It has been observed that when an invitee receives a screening invitation, their decisions are impacted by the views of their medical practitioner (GP) or family [17]. However, Dahl et al. [3] discovered that when there was decisional ambivalence about attending, those who did not attend did not discuss the choice with their general practitioners; instead, the ambivalent nonattendees chose to discuss the screening invitation with family members who shared their views on screening and would



not pressure them to participate. Dahl et al. [3] discovered that the desire to maintain one's health perception was a factor in nonattendees' decision to decline the screening invitation. Given that a similar tendency of men and women refusing GP-ordered health checks was discovered in a 1994 interview study [18], this appears to be a time-independent explanation for nonattendance. Dahl et al. [3] addressed the reasons why women declined screening invitations, but they did not include any data that may paint a complete picture of why women did not attend. As a result, the goal of this follow-up study was to delve deeper into the factors influencing women's decision not to engage in a screening program.

## 2. METHODOLOGY

We conducted a qualitative study using deductive content analysis on conversations as the research technique. We reviewed interviews with Danish women born in 1936, 1941, 1946, or 1951 who were requested to participate in a program to screen for abdominal aortic aneurysm, peripheral artery disease, carotid plaque, high blood pressure, dyslipidemia, atrial fibrillation, and type 2 diabetes. When 1984 women were polled, 74.3% of them responded [16]. An interview study was conducted with the women who declined the showing offer as part of the research [3]. Because it was the only information available on the people who weren't there, S "purposeful sampling" was employed to locate sources of various ages [3]. The 10 ladies interviewed were all born in Denmark, and Table 1 depicts their personalities.

## 3. DISCUSSIONS

The interview study adhered to the parameters established by Brinkmann and Kvale [19]. Its goal was to learn how persons who did not attend the cardiovascular screening felt about it, with an emphasis on why they declined the invitation. In 2013, each source was interviewed one-on-one at their house. The semi-structured interview guide was created by the first author after reviewing data on people who do not go to health checkups or testing for CVD and diabetes in both the primary and secondary healthcare sectors. The taped discussions were put up word for word [3].

Table 1: Characteristics of the informants in the interview study.

<b>Informant</b>	<b>Age</b>	<b>Marital Status</b>	<b>Self-Reported Health Issues</b>	<b>Risk Factors for CVD and DM</b>	<b>Social Status</b>
1	67	Married	Feeling healthy. No diseases.	Smoking.	Retired, previously a healthcare worker



2	72	Widowed	Severe anxiety. Hypertension.	Weight. Smoking. Family history of CVD.	Retired, previously self- employed
3	77	Married	Pacemaker. Hypertension. Osteoporosis.	Weight. Former smoker. Family history of CVD.	Retired, previously a sewing machinist
4	67	Married	Feeling healthy.	Former smoker.	Retired, previously a music teacher
5	67	Married	Feeling healthy. No diseases.	None.	Retired, previously an assisting wife
6	62	Married	Previous depression. Deep vein thrombosis. Osteoporosis. Psoriasis.	Weight. Family history of CVD.	Retired, previously an office assistant
7	72	Widowed	Feeling healthy. Slowly developing muscular dystrophy.	Family history of CVD.	Retired, previously a public-sector employee
8	72	Single	Feeling healthy. Hypertension.	Weight. Smoking.	Retired, previously a cleaning assistant
9	77	Married	Feeling healthy. Hypertension.	Former smoker.	Retired, previously a hairdresser



10	62	Married	Ischemic stroke and subsequent mildly impaired memory. Hypertension.	Smoker.	Retired, previously a cleaning assistant
Adapted from Dahl, et al. [3].					

Table 1: Characteristics of the informants in the interview study

### **The Primary Exam**

According to Kvale and Brinkmann [9], the main analysis was performed by the first author utilizing an intuitive, non-linear, and repeated method. More information on the interview study and screening approach can be found in previous work [3, 16].

### **Supplemental Examination**

If the goal is to learn more about a new problem, additional research of current data and findings may be conducted [20]. In this additional investigation, we selected to do a logical content analysis in accordance with the principles of Elo and Kyngas [21]. This is because the strategy can provide us with a new perspective on data and findings that we already have, allowing us to better comprehend the data. The analytical grid in a logical content analysis [21] must be based on a theory framework. Antonovsky's SOC theory [4] aided us in creating the structured grid.

### **The Theory of Sense of Coherence as an Analytic Lens**

The SOC framework was created in the late 1970s by Aaron Antonovsky [4] to demonstrate his salutogenic model of health, which asks, "Where does health come from?" Antonovsky's [4] hypothesis is founded on the idea of SOC, which suggests that a person's life situation affects their growth toward health. In contrast to the pathogenic inquiry, which investigates what causes sickness, Antonovsky's [4] crucial addition to the salutogenic theme looked into what promotes health and well-being. As a result, SOC is a critical determinant for people to maintain their position on the health-disease scale and progress closer to the healthy end. The SOC experience is influenced by three factors, which are as follows:

The level of comprehensibility refers to how ordered, regular, and explainable people believe the objects they encounter are. The degree to which anything is manageable is determined by how much individuals believe they have the means to deal with it. These instruments could be in the hands of individuals or trustworthy outside parties. Meaningfulness is the desire and motivation to engage with what happens. People find it meaningful when they believe that a component of their lives makes sense, both personally and logically [4]. The primary elements will help us understand the mental and emotional consequences of not going, as well as the person's motivation and resources to manage a screening request and whether they believe the results will be as predicted.

### **The Methodology of Analysis**

The logical analysis was completed in four steps using an iterative process. The first stage was to make sense of the real-world data by repeatedly reading and listening to recorded talks



to find context for analysis. The material of the analysis was created in the second section utilizing an orderly grid that included the three primary SOC components: readability, management, and meaningfulness. We sorted the data in step 3 by categorizing it and then combining comparable sub-groups into primary categories. In the fourth and last phase, we discussed and analyzed our findings to see whether they were true and credible. As a structure tool, the software NVivo, version 12 Pro (QSR International Pty Ltd, Victoria, Australia) was utilized.

#### **4. RESULTS**

Based on our findings, we believe the women declined the option to join because their daily lives were valuable but also difficult to comprehend or manage. The women's sense of meaning appeared to stem from both their societal role as caregivers and internal logics that provided them with a sense of SOC in their daily lives. As a result, we developed two major groups, each with its own set of subcategories:

The social role of the caregiver

##### **The Caregiver's Social Role**

- Imposition of a caring role
- Self-imposed caregiver

##### **Using Internal Logic**

- Being in good health
- Desire to maintain the status

##### **The Social Role of the Caregiver**

We noticed that the women rejected screening because of their caring role. In the investigation, we identified two categories of caring responsibilities: imposed and self-imposed caring obligations.

#### **5. DISCUSSION**

It was discovered that women's social tasks as caretakers and their own internal logics can cause them to overlook events. This indicates that women should prioritize maintaining SOC in their daily life. The next section discusses what it means when societal roles and inner logics influence a person's decision to join or not join a cardiovascular prevention program.

##### **The Social Role of the Caregiver**

This primary category is founded on the societal conventions with which Scandinavian women were reared, as well as the setting in which their identities were created. According to Melby et al. [22], the twentieth-century function of Scandinavian women is based on a myth that divides them into three groups: wives, workers, and mothers. According to Antonovsky [4], women understood from birth that they were destined to be brides and mothers. Women developed a wide range of abilities required for this social function through connection and



identity. They rapidly discovered that in their culture, this position is extremely essential and regarded as the foundation of society. We discovered that women's social roles played a significant influence in their failure to show up for care, whether they decided not to or were compelled to. We regard the care role that people choose as a personal choice, and for the women who refused to be tested, it appeared to be closely related to a wish to keep this role. The forced caring position, on the other hand, could be described as balancing personal resources with daily care tasks. Furthermore, de Waard et al. [15] discovered that being occupied with family makes it difficult to attend cardiometabolic health exams. However, the early works in the study merely said that this difficulty was created by a duty to family or being focused on family [18, 23]. According to Antonovsky [4], the major challenge for a homemaker is having too many tasks. He also claims that the modern housewife is a role in which women enjoy security and balance without a sense of co-determination, making it difficult for them to find meaning in their lives. Even if the other two important characteristics were different, the ladies in our study felt purpose in their daily lives. Furthermore, Antonovsky [4] claims that a woman's personality is influenced by her role as a housewife. We believe that the women's desire to maintain their caregiving position had a significant influence in why they did not attend the screening and, by extension, who they are. According to our findings, women's SOC is associated with a sense of purpose and a difficultly strong sense of being able to adjust or handle situations. According to Antonovsky [4], persons who have a lack of meaningfulness and a strong sense of control and compensability have a lot of life grit when it comes to finding ways to deal with the challenges of everyday life. Furthermore, Antonovsky [4] claims that meaningfulness is the most significant factor in coping with the stresses of daily life. This appears to be the case for the ladies in our group who claimed it was difficult to deal with.

### **Maintaining Control and Relying on Inner Logics**

We discovered that the ladies in our second group relied on their own inner logics, which provided them with SOC experiences in their daily lives. This led them to believe that blood testing were pointless. Inner logics, on the other hand, were unique to each woman and were valued differently. Women in good health were content with their life. They also found meaning in trusting their own judgment regarding their health state. According to a study by Stol et al. [24], persons who feel happy don't worry about their health and believe their risk of heart disease is minimal. We also discovered that the women did not consider the possibility of becoming ill, instead relying on their own inner reasoning to maintain a SOC. Furthermore, de Waard et al. [15] discovered that participants avoided participating in cardiovascular health examinations because they were concerned of what would happen and how it would effect them. As a result, we believe that the women's various inner logics were exploited to avoid confronting the outcomes of their screening. Furthermore, we contend that not going was the result of inner logics rather than critical thought. According to this study, critical thinking is when you consider whether an idea or perspective is truthful and useful in this particular context. People learn from their experiences, and critical thought calls into question the concepts, values, and beliefs that drive their behavior in specific contexts [25]. Ellis et al. [26] discovered that people were unaware of the importance of getting a cardiovascular health check because they were well-versed in illnesses and how to avoid



them. According to Antonovsky [4], it is a fundamental human characteristic that for something to have meaning, it must make sense to us on both an emotional and logical level. Cardiovascular tracking, on the other hand, makes little sense for the women who did not show up because their decision was based on internal logic rather than critical analysis. The women stated that they did not want to bother any medical experts because they had no major symptoms of sickness, which was a valid justification for not attending screening. Similar to Stol et al. [24], de Waard et al. [15] discovered that those who did not attend but were already in contact with medical services, such as their GPs, had no concerns about their health and believed that a health check was unnecessary. Furthermore, we discovered that both recent health checks and checks performed by the GP years ago made the women less inclined to attend the screening and were used as an excuse by the women when explaining why they didn't want to go. Stol et al. [24] discovered that older persons avoided going to the doctor until they were quite ill out of fear of misusing the healthcare system. Offersen et al. [27] also discuss how older Danish men and women felt obligated not to overburden the healthcare system. We discovered that the ladies in our study felt the same way about an invitation to a screening: it was a waste of the healthcare system's time and money because they believed they were fit. However, we discovered that if people had physical symptoms, they could prefer non-biological options over biomedical ones in order to maintain control over their life. Our study discovered that the women maintained their SOC experience by remaining in control of their daily lives, even when faced with numerous potential challenges. A screening request may be distressing for people who are unsure about what they want to do. Others may not find it important at all. Finding out what causes stress and how to deal with it, according to Antonovsky's theory of SOC [4], is a personal experience anchored on one's life events. A person must experience significant life events in order to feel a feeling of SOC [4]. The women who responded to our poll said it was crucial to have control over their everyday life. Overall, this study opened my eyes to what was at stake for the women who did not show up. Acceptance screening was viewed as an unexpected threat to their identity and social role. As a result, the study assisted us in learning more about the mental and social repercussions that women who get a screening request may face.

### **Implications in Nursing Practice**

Including the invitees' regular care provider may help bring in more individuals. According to Antonovsky, employing a well-known doctor [4] can help with management, which may encourage those without a lot of money to get involved. People in Denmark are assigned a GP, who may appear to be a natural person to speak with. Furthermore, patients with diabetes have stated that receiving personal support from a trusted care provider may help them begin cardiovascular screening [28]. Ethically, GPs may play an important role in assisting invitees in making decisions based on facts rather than their personal feelings, and they should ensure that the conclusion they make is in line with what the person wants. Involving invitees in the formulation of the screening request may also be beneficial for making it easy to understand and clarifying the topic [28]. Getting the public involved may be a strategy to make screening more socially and psychologically relevant, making screening more acceptable and encouraging participation. It's critical to dig into this further.





## 6. CONCLUSION

We discovered that the women's reasons for refusing to participate in screening were based on their daily encounters with SOC, which they did not want to risk by participating. The findings of this study indicate that attempting to convince all women to participate in cardiovascular screening in the same way does not succeed. This is because a person's inner reasoning, social roles, and desire to maintain control of their life all have an impact on their SOC experience. According to SOC theory, the women perceived screening as an unexpected threat to their capacity to maintain social functions and, by extension, their identities (comprehensibility). This made it more difficult for them to govern how they anticipated screening might effect them (manageability). They didn't want to engage (meaningfulness) since screening didn't make personal or logical sense to them. Another way that manageability was defined, which contributed to not attending, was maintaining a balance between personal resources and everyday care obligations. Furthermore, women who were healthy considered screening was a waste of healthcare resources because it depended on how they felt about their health. Overall, this study contributes to our understanding of why women seek cardiac exams, particularly for psychological, social, and moral reasons.

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