


Men's Experiences With Managing Type 2 Diabetes and Their Encounters With Health Professionals: A Scoping Review

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Abstract

Type 2 diabetes is on the rise globally, and previous research has identified gender as one known risk factor for developing this disease. Gender has also been reported to affect patients' experiences of managing type 2 diabetes. However, little is known of men's specific experiences with type 2 diabetes, as research with a gendered focus has concentrated more on women's experiences with the disease. This scoping review explores how research has addressed men's experiences of managing type 2 diabetes and their encounters with health professionals. The review consists of an iterative process, involving six steps: identification of the research questions, identification of relevant studies, study selection, charting the data, collating and summarizing results, and consultation with external stakeholders. Through the process, 28 publications were identified, which indicate a gap in research on patients' experiences with type 2 diabetes. The majority of the identified studies focuses on men from an ethnic minority due to their poorer health outcomes. However, a knowledge gap regarding men belonging to an ethnic or racial majority warrants further attention, as studies indicate that men who share similar social economic status face similar barriers to improving the management of type 2 diabetes. There is little discussion of how the gendered dynamics in encounters between patients and health professionals affect the management of type 2 diabetes. This review suggests a need for further research that explores how practices of masculinities, that is, the normative practices guiding men's behavior, intersect with men's experiences with type 2 diabetes in a broader perspective.

Keywords

scoping review, type 2 diabetes, masculinities, health professionals, self-management

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Introduction

Type 2 diabetes (T2D) is on the rise globally. A World Health Organization (WHO) report estimated that 422 million adults were living with diabetes in 2014 (WHO, 2016). Research identifies risk factors related to the increase in T2D as ethnicity, gender, age, socio-economic factors, and health behaviors. A social gradient has also been noted in the development of T2D and the uptake of treatment. While most studies have focused on the social determinants of T2D and on how the risks of developing T2D reflect social

stratification, Wiedman (2010) emphasizes how T2D is a general problem related to a rise in global chronicity following conditions of modernity. The increase thus reflects a complex interplay between human

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biology and changing structural, cultural, and social conditions of human living.

Research has emphasized men's greater risk of developing diabetes (White et al., 2011), but less attention has been paid to how gender affects patients' management of T2D. Chronic illnesses have been regarded as gender-neutral although the management of chronic illness reflects gendered differences (Thorne et al., 1997). The same can be said of research on T2D, where patients identifying as female comply with physicians' advice and complete treatment more often than those identifying as male. The gendered differences also stand out in research literature on how social support affects patients' management of chronic illness, reflecting a gendering of care practices in relationships (August & Sorokin, 2010). However, an initial search for literature on men's experiences of managing T2D led to a finding of only a handful of studies (Hawkins et al., 2016, 2018; Liburd et al., 2007; Sherman & Fawole, 2016).

A WHO report from 2018 addresses men's general health and highlights the need for a gender perspective to effectively include men in health services and health promotion initiatives (WHO, 2016). Following up on our interest in men's experiences of managing T2D and the call for a gendered perspective on men's health, we conducted a scoping review of how research has addressed (a) men's particular experiences of managing T2D, (b) how gender affects encounters between men with T2D and health professionals (HPs), and (c) how men experience social support in relation to management of T2D.

This review is theoretically informed by an understanding of gender as a set of social and cultural practices, which pervades performances in all situations (West & Zimmerman, 1987). We draw on a theoretical approach of masculinities as multiple in recognition of a social order including hegemonic and subordinate masculinities (Connell, 1995; Connell & Messerschmidt, 2005). Adopting a gendered understanding of how research has addressed men's experiences with managing T2D, and their experiences of encounters with HPs involves a particular focus on how varying forms of masculinity intersect with health. This will in turn promote HPs' engagement with patients and direct future research in the field.

Design and Method

This review is conducted as a scoping review of how research has addressed men's everyday experiences of managing T2D and their encounters with HPs. Following scoping review methodology (Arksey &

O'Malley, 2005), this study consists of mapping and identifying relevant studies to determine how a broad research theme has been explored (see also Levac et al., 2010). The subsequent aim is to summarize established knowledge and identify potential research gaps. A scoping review consists of an iterative process, involving six steps: identification of the research questions, identification of relevant studies, study selection, charting the data, collating and summarizing results, and consultation with external stakeholders. As an alternative to external stakeholders, a reference group of researchers with experience of research in gender and chronic illnesses was involved.

The Research Questions

This scoping review included three research questions:

Research Question 1: How do men experience the management of T2D in their everyday lives?

Research Question 2: How do men with T2D experience their encounters with HPs?

Research Question 3: How does social support affect men's experiences with the management of T2D?

The research questions are situated within the field of health promotion as this approach focuses on patient perspectives and patient resources such as networks and health literacy in the context of living with chronic disease.

While gendered practices have been identified as shaping how we come to engage with a position in society, this review explores how these insights inform research on men's experiences of T2D and their encounters with HPs. Studies including a patient perspective are thus central to the inquiry.

Identifying Relevant Studies

The search was conducted in relevant databases that span across disciplines within medical and social sciences, such as PubMed, Embase, CINAHL, Anthropology Plus, PsycINFO, Sociological Abstracts, and Web of Science. The strategy involved identifying keywords using thesauruses such as MeSH terms and CINAHL Subject Headings. This resulted in six search terms focusing on different aspects of the research questions: (a) gender, (b) T2D, (c) health promotion, (d) experiences, (e) encounters with HPs, and (f) social network.

Each term was supplemented with synonyms and associated concepts such as male, diabetes mellitus,

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> • Publications from 2005-2021 in English, Danish, Swedish or Norwegian. • Publications from countries with health care comparable to the Danish, supplemented by publications from the US due to the strong focus on gender in relation to management of T2D. • Publications that focus on gender in relation to T2D in the form of gendered differences, gendered connotations or practices related to masculinity. • Studies that include a patient perspective in relation to gender and T2D. • Studies that focus on adult men >18 years with or at risk of T2D. • Studies that focus on encounters between men and health care professionals that centre on enabling treatment of T2D with a particular focus on their mutual experiences and expectations. • Studies that focus on how social support from spouse, friends or other forms of network affects men's experiences with managing T2D. 	<ul style="list-style-type: none"> • Publications related to type 1 diabetes or studies of men's experiences with other chronic diseases, which only mention T2D in passing. • Pharmacological studies that might involve a focus on men's experiences with T2D, but do not meet the aim to include a gendered approach to patient perspectives. • Studies that measure the outcome of interventions without regard to patients' subjective experiences.

Figure 1. Inclusion and Exclusion Criteria

prediabetes, knowledge, perspectives, treatment, care, spouse, partner, and social network.

Supplementary searches identified relevant gray literature from the websites of health authorities and patients' organizations; furthermore, manual searches of references from selected publications were conducted to identify additional relevant studies. The search was narrowed to include adult studies (18+) in databases with this particular exclusion option (e.g., PubMed and Embase).

The Selection Process

The search was conducted in September and November 2020 and resulted in 2,855 unique publications. Thirty-one additional publications were identified in gray literature, and references in selected publications were included.

The selection process consisted of two steps: first, the title and abstract were screened, followed by a screening of the full text. The first step involved identifying studies that focused on gender in relation to T2D or that produced results reflecting the importance of gender in this context even if gender was not explicitly within the defined scope of the study.

The first inclusion criterion (Figure 1) implies that gender as a topic must be stated in the abstract, providing actual insights into gendered issues including barriers and dynamics. Similarly, studies focusing on

encounters between men and health professionals must include gender, either by focusing on the role of gendered practices and gendered dynamics in medical encounters or by providing analytical results on the importance of gender in relation to T2D.

We limited our scope to countries with health care comparable to the Danish. Although health care in the United States differs from the Danish regarding equity and access, publications from the United States were included because of their strong research focus on gender.

Two of the authors (Pihl and Thualagant) validated the selection by checking whether the stated criteria were followed and subsequently comparing the selected publications. This led to the exclusion of studies that, despite a gendered focus, mostly provided insights into women's experiences with T2D. Studies evaluating participants' satisfaction with interventions were also excluded if they did not include further reflections on the role of gendered practices. Finally, studies that compared gendered differences in quality of life or experiences of social support for patients with type 1 diabetes and T2D were excluded, as these focused more on the management of the disease rather than the gendered differences. This process resulted in the inclusion of 93 studies in full-text screening.

The second step consisted of thorough readings of the 93 studies. This was performed by two authors independently (Pihl and Thualagant), with the first

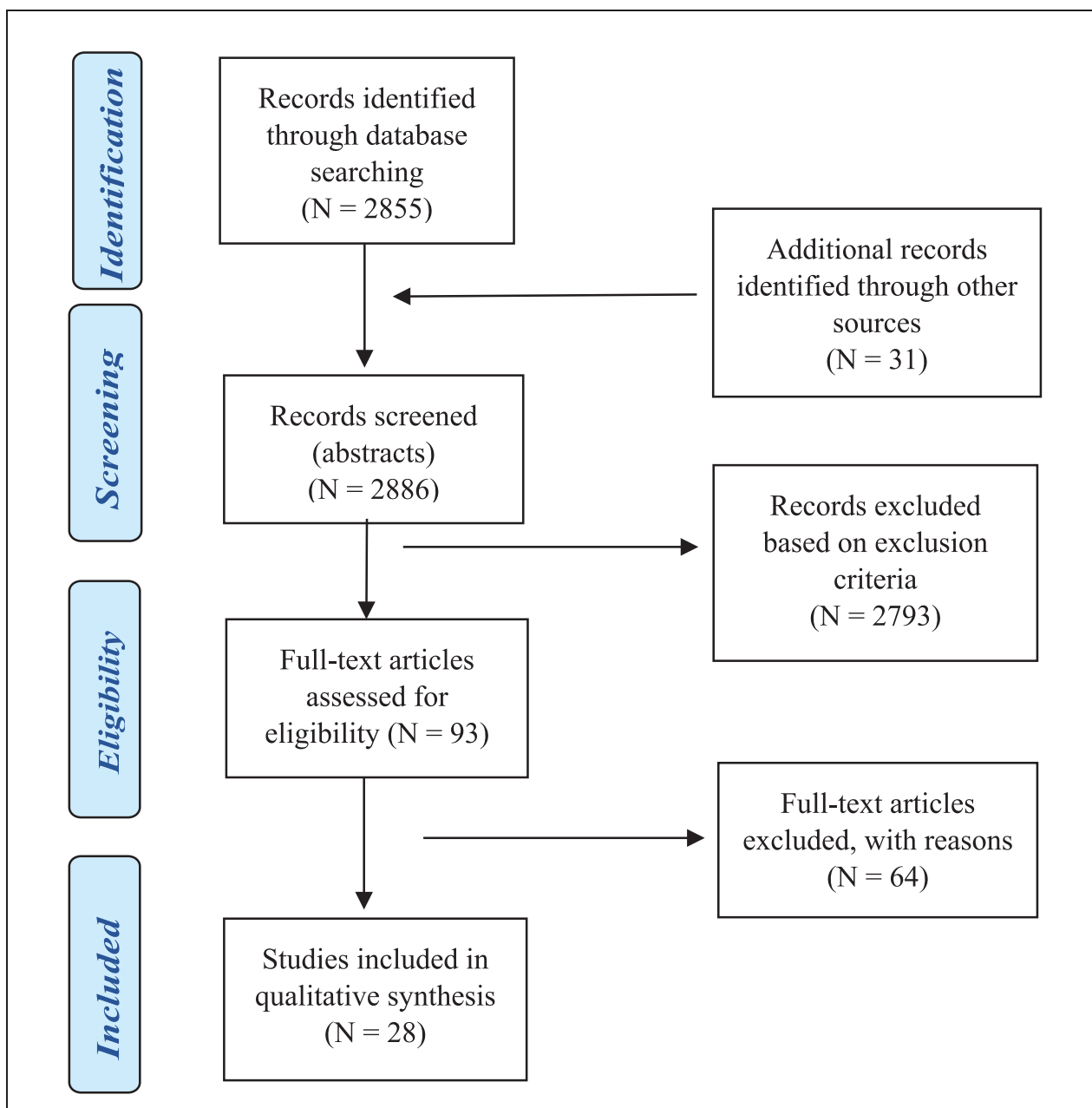


Figure 2. Flowchart

author reading all the studies. In this assessment, a decision was made to include or exclude according to the criteria, leading to a final selection of 28 studies (see flowchart, Figure 2).

Charting the Data

Following the selection process, the publications were categorized according to aim, design, population or informants, type of publication, and results. We also included a brief reflection on the gendered focus on

T2D and whether the study addressed men's experiences in particular, their experiences of encounters with HPs, and how social support affected men's experiences with managing T2D.

Results

A total of 93 publications were included in the full-text screening. Out of these 93 studies, 28 were eligible according to the criteria.

Publication Characteristics

Of the 28 publications, we found that 24 (86%) included an empirical scope. Three (11%) publications are review-based while one involves developing a conceptual framework. Apart from one doctoral dissertation and three (11%) reports, all were published in peer-reviewed journals. Most (22/79% studies) were published since 2010. One third (33%) were published within the last 3 years (2018–2021), indicating a growing interest in men's experiences with T2D. Seven (25%) publications are from before 2010 (Table 1).

Geography

Most publications stem from research in the United States. We found that no publications from Europe outside the Nordic region fitted the criteria of the second selection, that is, contributing insights into men's specific experiences. Thus, four (14%) Nordic studies were included, two (7%) from Denmark and two (7%) from Sweden.

Journals of Publication

Papers were published in diverse journals, focusing on diabetes (3/11%), gender (2/7%), relationships and couples (2/7%), patient education (2/7%), nursing (2/7%), general practice (3/11%), public health (2/7%), and race, geriatrics, family, and community health (5/18%). One journal has published three (11%) of the included studies: *the American Journal of Men's Health*.

Research Methodologies

Most studies use qualitative methods (15/54%) publications are based on individual interviews or focus groups). Fewer than one third (21%) involve only quantitative methods. The four (14%) publications employing mixed methods combine interviews with a survey or clinical data. Four studies (14%) include a conceptual framework (Jack et al., 2010) or a synthesis of existing studies (Aguilar, 2012; Hawkins, 2019; Jack, 2005). The study designs reflect how qualitative methods are often employed in research on patient experiences with the qualitative studies providing in-depth knowledge of men's experiences of diabetes from a particular position, that is, African American or Hispanic men with a specific regional affiliation and socioeconomic status.

Synthesis of Results

The following section shows how the included studies relate to the research questions by presenting the identified findings and research gaps. In addition, the synthesis considers how conceptualizations of masculinity figure in the studies.

Men's Knowledge and Experiences of Managing T2D

The selected studies point to a gap in knowledge of men's experiences with managing T2D. While gendered differences have been observed, little attention has been given to explaining why gendered differences appear in relation to outcomes of T2D and how the gendered differences unfold in patients' lives and experiences with managing T2D (see, for instance, Broom & Lenagh-Maguire, 2010; Mathew et al., 2012).

Most publications focus strongly on the experiences of men from a racial or ethnic minority background or men as immigrants, given the fact that men from these groups often have poorer health outcomes. Studies from the United States form the majority (21/75%) of the selected 28 publications, providing insights into the experiences of African American, non-Hispanic Black, or Latino men (Hawkins, 2019; Hawkins et al., 2015; Jack et al., 2010). A central theme in these publications is cultural and gendered barriers to men's self-management of T2D with a focus on how practices associated with hegemonic masculinity counteract men's effective management of T2D (Broom & Lenagh-Maguire, 2010; Hawkins, 2019; Hawkins et al., 2015; Liburd et al., 2007; Sear et al., 2019; Sherman & Williams, 2018). Hawkins et al. conclude that non-Hispanic Black and Latino men refrain from seeking medical help due to norms associated with hegemonic masculinity including men exercising control over their bodies, which become challenged by physicians' advice. The studies of African American, non-Hispanic Black, and Latino men thus conclude that norms associated with masculinity such as staying in control, being autonomous and engaging in risk-taking discourage men from seeking medical help and improving glycemic control, and adoption of health-promoting lifestyles.

Gendered roles such as males assuming the status of breadwinner in the family lead to a prioritization of work over health. A study of Latino men living in the United States repeated the finding of men's working lives as challenging the management of T2D, as the obligation to work long hours in hazardous jobs

Table 1. Included Publications and Extracted Data

Author	Year	Title	Country	Study aim	Study design	Population	Sample
Aguilar, R. B.	2012	Managing type 2 diabetes in men	United States	Exploration of coping strategies of men with type 2 diabetes	Review	Men with type 2 diabetes	NA
Ahlmark, N., & Dindler, C.	2017	Mænd i København. Formativ procesevaluering af peer-til-peer projekt for mænd i risiko for type 2 diabetes	Denmark	Evaluation of a peer-to-peer intervention directed at men at risk of type 2 diabetes	Evaluation consisting of participant observation, individual interviews and focus groups	Men working as peers and single men at risk of type 2 diabetes	Ten men recruited as peers and three male peer participants
Arnskov, K., & Diabetesforeningen	2019	Treatment of type 2 diabetes (Behandling af type 2 diabetes) 2019	Denmark	Study of gendered differences in perceptions and self-management of type 2 diabetes	Survey	Members of a Danish diabetes patient organization	715 men and women
August, K., & Sorkin, D.	2010	Marital status and gender differences in managing a chronic illness: The function of health-related social control	United States	Exploring the influence of social network (spouse) for management of type 2 diabetes	Survey	Married and unmarried patients with type 2 diabetes	1447 patients diagnosed with type 2 diabetes
August, K., Kelly, C. S., & Markey, C. H.	2021	Reciprocity and personality in diet-related spousal involvement among older couples managing diabetes: The role of gender	United States	Exploring the role of gender for spousal involvement in patients' management of type 2 diabetes (diet) and the influence of personality traits on experiences with spousal support	Cross-sectional study based on a survey	Couples in which at least one is diagnosed with type 2 diabetes	148 couples
Broom, D., & Lenagh-Maguire, A.	2010	Gendered configurations of diabetes: from rules to exceptions	Australia	Investigating how gender influences the experiences of self-managing type 2 diabetes from a relational perspective on gender	Interviews	Men and women living with type 2 diabetes	119 men and women
Cherrington, A., Ayala, G., Sciarinci, I. et al.	2011	Developing a family-based diabetes program for Latino immigrants: do men and women face the same barriers?	United States	Examining the barriers and facilitators to diabetes self-management among Latino immigrants with diabetes and gendered differences	Focus group interviews	Latino men and women	21 men and 24 women
Fekete, E. M.	2007	Gender and illness role influences on social control interactions and psycho-social well-being of couples living with type 2 diabetes	United States	Exploring spousal support using social role theory—examining patterns of interactions and psychosocial well-being of couples in which one is diagnosed with type 2 diabetes	Survey	Couples in which at least one is diagnosed with type 2 diabetes	240 patients and spouses
Gafvels, C., & Wandell, P. E.	2006	Coping strategies in men and women with type 2 diabetes in Swedish primary care	Sweden	Exploring coping strategies among men and women with type 2 diabetes in relation to demographic, medical, socioeconomic and psychosocial situation	Survey combined with analysis of medical data	Swedish-born patients with type 2 diabetes	232 men and women (121 men/111 women)
Hawkins, J.	2019	Type 2 diabetes self-management in Non-Hispanic Black men: A current state of the literature	United States	Mapping the scope and content of research focusing on self-management of type 2 diabetes in Non-Hispanic Black men	Literature review	Publications focusing on non-Hispanic black men's experiences	NA
Hawkins, J., Mitchell, J., Platt G. et al.	2018	Older African American Men's Perspectives on Factors That Influence Type 2 diabetes Self-Management and Peer-Led Interventions	United States	To advance an understanding of the intersections between age, race/ethnicity and gender on self-management of type 2 diabetes in older African American men.	Focus group interviews	African American men above the age of 55	12 African American men

(continued)

Table 1. (continued)

Author	Year	Title	Country	Study aim	Study design	Population	Sample
Hawkins, J., Watkins, D., Kieffer, E. et al.	2015	Psychosocial factors that influence health care use and self-management for African American and Latino men with type 2 diabetes: an explorative study	United States	Exploring the psychosocial factors that influence management of type 2 diabetes and use of health care among men of color with type 2 diabetes	Focus group interviews	African American and Latino men	Nine African American men + 13 Latino men
Helgeson, V., Naqvi, J. B., Seltman, H. et al.	2020	Links of communal coping to relationship and psychological health in type 2 diabetes: actor-partner interdependence models involving role, sex and race. Swedish people diagnosed with type 2 diabetes mellitus	United States	Examining relations between relationship and communal coping and psychological functioning among couples in which one was diagnosed with type 2 diabetes	Mixed methods	200 couples	46% black, 45% women
Hjelm, K., & Bertero, C.	2009	Social support as described by Swedish people diagnosed with type 2 diabetes mellitus	Sweden	Exploring the influence of social support on foreign-born persons living with type 2 diabetes in Sweden in relation to gender, age and duration of disease	Mixed methods	Foreign-born adults diagnosed with type 2 diabetes	34 foreign-born men and women
Hurt, T., Francis, S. L., Seawell, A. H. et al.	2020	Revising Diabetes Programming for Black Men and Their Families	United States	Exploring the educational needs of men living with type 2 diabetes from a social marketing theory, assessing preference strategies and examining their relation to food	Focus group interviews	African American men	4+9 men
Hurt, T., Seawell, A. H., & O'Connor, M.	2015	Developing effective diabetes programming for black men	US	Obtaining feedback from participants in a program to reduce the impact of type 2 diabetes among Black men	Focus group interviews	Black men with, at risk or affected by type 2 diabetes	20 Black men
Jack, L., Toston, T., Jack, N. H., & Sims, M.	2010	A Gender-Centered Ecological Framework Targeting Black Men Living with Diabetes: Integrating a Masculinity Perspective In Diabetes Management and Education Research	United States	To offer a gender-centered ecological framework (a theoretical framework) that can help examine relations between sociodemographic factors, family, knowledge, psychological and biological health, health behavior and masculinity for type 2 diabetes outcomes	Conceptual development	Black men with or at risk of type 2 diabetes	Not stated
Jack, L. Jr.	2005	A candid conversation about men, sexual health and diabetes	United States	A call for more male-focused research on the sexual complications following type 2 diabetes, in particular how masculinity norms shape perceptions of male sexual roles	Review	NA	NA
Liburd, L. C., Namagoye-Funa, A., & Jack, L. Jr.	2007	Understanding "Masculinity" and the challenges of managing type 2 diabetes among African American men	US United States	Exploring illness narratives of African American men with type 2 diabetes with a specific focus on how masculinity intersects with self-management of type 2 diabetes	In-depth interviews	African American men living with type 2 diabetes	16 men
Mansyur, C., Rustveld, L., Nash, S. G. et al.	2016	Hispanic Acculturation and Gender Differences in Support and Self-Efficacy for Managing Diabetes	United States	To determine whether support, social norms and associations with self-efficacy vary by gender and language-based acculturation in Hispanic women and men with type 2 diabetes	Survey	Hispanic women and men with type 2 diabetes	248 women and men

(continued)

Table 1. (continued)

Author	Year	Title	Country	Study aim	Study design	Population	Sample
Mathew, R., Guccicardi, E., De Melo, M. et al.	2012	Self-management experiences among men and women with type 2 diabetes mellitus: a qualitative analysis	Canada	Understanding the gendered differences in diabetes self-management, focusing on barriers, needs and challenges	Focus groups and individual interviews	Women and men diagnosed with type 2 diabetes	35 patients with type 2 diabetes (51% female and 49% male)
Miranda, A., Garcia, D. O., Sánchez, C. et al.	2020	Health and type 2 diabetes perspectives of at-risk, Mexican-origin males (HD-MxOm): a qualitative study	United States	Exploring perspectives on type 2 diabetes, focusing on barriers to engaging in health behaviors and the impact of culturally rooted practices of masculinity for males of Mexican origin	Mixed methods	Men of Mexican origin at risk of type 2 diabetes	15 men of Mexican origin
Morgan, E. H., Graham, M. L., Folta, S. C. et al.	2016	A qualitative study of factors related to cardiometabolic risk in rural men	United States	Examining the knowledge of modifiable cardiometabolic risk factors among rural men in the United States and identifying concerns and motivations to reduce risks of diabetes and cardiovascular diseases	Focus group interviews	Overweight/obese and medically underserved men in rural Montana	54 men
Ponzo, M., Guccicardi, E., Weiland, M. et al.	2006	Gender, ethnocultural, and psychosocial barriers to diabetes self-management in Italian women and men with type 2 diabetes	Canada	Exploring the relations between gender, ethnocultural factors, family support, depression symptoms and illness perceptions for self-management of type 2 diabetes	Focus group interviews	Italian immigrants with type 2 diabetes	50 Italian men and women
Sandberg, J., Trief P., Greenberg, R. et al.	2006	He Said, She Said: The Impact of Gender on Spousal Support in Diabetes Management	United States	Exploring gendered differences in experiences of support from spouse to further self-management of type 2 diabetes	Semi-structured interviews	Couples in which at least one is diagnosed with type 2 diabetes	74 patients and their spouses
Seear, K. H., Lelievre, M. P., Atkinson, D. N. et al.	2019	"It's Important to Make Changes." Insights about Motivators and Enablers of Healthy Lifestyle Modification from Young Aboriginal Men in Western Australia	Australia	Exploring how young Aboriginal men make significant healthy lifestyle changes	In-depth interviews	Aboriginal men	Four Aboriginal men aged 20–35 years
Sherman, L., & Williams, J. S.	2018	Perspectives of Fear as a Barrier to Self-Management in Non-Hispanic Black Men With Type 2 Diabetes	United States	Examining the relationship between fear and self-management of type 2 diabetes in Non-Hispanic Black men	Semi-structured interviews	Non-Hispanic Black men	19 men recruited from barbershops
Sherman, L., & Fawole, T.	2016	The more I do, the better I'll be: The treatment preferences of type 2 diabetes among African American men	United States	To obtain knowledge of African- American men's preferred strategies for managing type 2 diabetes	Individual interviews	African American men	19 men

onstruction, farming, lumber, and chemical production) increased negative stress. The study highlighted how a lack of flexibility at work produces work-related stress, which negatively affects men's health behaviors (Cherrington et al., 2011). Drawing on Connell's theorization of masculinity, Hawkins (2019) refers to these practices and the gendered role of the male breadwinner as associated with performances of hegemonic masculinity.

Although these studies indicate a need for future research on African American or Latino men in the United States due to their poorer health outcomes, a study by Morgan et al. (2016) of White men with T2D residing in the rural west of the United States led to a similar conclusion. In similarity to Hawkins (2019), Morgan et al. discuss how practices of rural masculinity are at odds with healthy behaviors such as seeking medical help as well as how obligations to work long hours in farming discourage men from taking up exercise. Male sociality in the rural community involves drinking and smoking, and thus men's social interactions represent a barrier to managing T2D (see also Mathew et al., 2012).

A study of patients with T2D in Canada reflected a gendered pattern in relation to preferred self-management practices, leading women to reveal their diagnosis sooner than male patients, who often concealed their T2D from family members and their colleagues at work (Mathew et al., 2012). While these studies include different ethnic groups of patients, they present somewhat similar experiences in relation to gendered roles. Drawing on theories of masculinity and on Liburd et al. (2007), Mathew et al. characterized men's decision to conceal T2D as a reflection of gendered norms requiring men to perform autonomy, representing a barrier to the effective management of T2D.

Studies also address men's experience of coping strategies affecting self-management revealing gender differences (Aguilar, 2012; Gåfvels & Wändell, 2006), with women favoring social support and emotional strategies and men relying more on an instrumental approach to T2D (Gåfvels & Wändell, 2006). Aguilar (2012) points out that men with T2D exert less effort in coping, are less informed about treatment strategies, and are less likely to use health care services. In this way, a need to take account of cultural differences emerges across the studies of men's coping strategies and experiences of managing T2D.

Studies indicate conflicting findings on the role played by men's knowledge in the management of the disease. Miranda et al. (2021) find that men of Mexican origin at risk of T2D lack sufficient

knowledge of risk factors. Lifestyle changes are challenged by a fatalistic approach to life and an adherence to work (see also Mansyur et al., 2016). In contrast, Seear et al. (2019) identify how young Aboriginal men with or at risk of T2D successfully change their lifestyles through diabetes education and the belief that their actions can help mitigate the progression of the disease. Therefore, while studies of men's experiences suggest a need for education about health behavior, the effects of knowledge on men's managing of T2D require consideration of cultural factors.

One exception to the empirical studies of men's experiences is the article by Jack et al. (2010), who develop a conceptual approach labeled "a gender-centered ecological framework" to address Black men's specific experiences with T2D, with an integrated approach to how socio-demographic factors, knowledge of diabetes, family, community, psychological and biological health, and masculinity all affect Black men's experiences with T2D. This ecological approach calls for an examination of the social norms of masculinity across individual, familial, and societal contexts in order to improve understanding of how gender roles conflict, such as how the expectations of staying strong and hesitation to ask for help affect Black men's management of T2D.

A general finding in the publications is the lack of emphasis on masculinity. The studies indicate the need of developing differentiated interventions targeting men, not only focusing on gendered practices or race/ethnicity but also on how men's experiences with T2D are determined by sociodemographic factors, community, social network, family status, and knowledge of diabetes.

The findings point to a need to engage further with research on the intersections between practices of race, gender, class, and regional affiliation to enhance the understanding of men's practices of managing T2D. Following Hawkins (2019) and Jack et al. (2010), the empirical research also indicates how men's management of T2D is a complex field requiring fluid conceptualizations of masculinity, as men's experiences also become affected by social support, access to health care, community, socioeconomic status, and knowledge of T2D.

Men's Experiences of Encounters With Health Professionals and of Treatment of T2D

A less developed theme in research on T2D involves men's encounters with HPs (Ahlmark & Dindler, 2017; Hurt et al., 2015, 2020; Jack, 2005). Two

publications address a study of African American men's preferences regarding interventions, involving the influence of masculinity to further men's self-management of T2D (Hurt et al., 2015, 2020). Another study evaluates a male peer-to-peer program targeting vulnerable men at risk of T2D in Denmark to determine men's experiences with the program (Ahlmak & Dindler, 2017). One publication addresses men's sexual problems following T2D, particularly how norms of masculinity and the emphasis on control affect men's sexuality (Jack, 2005). Men with T2D face complications in their sexual lives to a greater degree than women, which necessitates the capability of HPs to address this issue in consultations (Jack, 2005; see also Arnskov & Diabetesforeningen, 2019).

Several publications call for differentiated interventions to support the different needs of men and women (Cherrington et al., 2011; Hurt et al., 2020; Jack, 2005; Mansyur et al., 2016), although without explaining how gendered dynamics actually influence encounters between male patients and female HPs. A theme common to several publications involves the effect of gendered preferences on the content of encounters with HPs. In these publications, a gendered dynamic is emphasized, where men prefer a practical approach to managing T2D focusing on instrumental aspects and self-education, while women prefer social support and participation in support groups (Mathew et al., 2012). Apart from the need for interventions to take account of gendered preferences, several studies point out the importance of developing culturally sensitive programs (Hurt et al., 2020; Hurt et al., 2015; Sherman & Fawole, 2016).

For programs to be effective, interventions should also take account of gendered role conflicts such as the obligation of men to perform as breadwinners and the difficulties this poses for effective management of T2D. Based on a study of African American men, Hurt et al. (2020) propose the inclusion of men's families in interventions, as African American men benefit from an inclusion of their spouses.

Apart from the intersections between gendered and cultural practices, studies from the United States report how African American and non-White Hispanic men prefer community-based services and emphasize affordable access to health care for further participation (see Hawkins, 2019), which suggests the importance of regional affiliation.

A gendered pattern emerges in relation to men's experiences with health care provision in a study from Denmark, as men reported greater satisfaction than women with help from HPs to achieve glycemic

control. This included help from their doctor and specialized diabetes nurses at Danish outpatient clinics (Arnskov & Diabetesforeningen, 2019). This is rather interesting as men have poorer health outcomes than women.

A final point is the lack of focus in research on HPs' experiences of treating men with T2D. None of the selected publications brought up this subtheme, which is interesting given the fact that men with T2D are likely to meet female HPs, calling for attention to how gendered practices unfold in these encounters.¹

Men's Experiences With Social Support to Self-Manage T2D

Publications addressing men's experiences with T2D in relation to social support particularly identified spousal support to improve medication adherence and the lifestyle changes required to self-manage T2D. They specifically focused on whether support is perceived as constructive or as criticism and nagging behavior (August & Sorkin, 2010; Sandberg et al., 2006) or whether experiences of social support are equally distributed between men and women (August et al., 2021). Men experience much greater support from their spouse and other forms of network than women do (Cherrington et al., 2011) and also find the support more helpful than women (August & Sorkin, 2010; Sandberg et al., 2006). In a study of needs and barriers of immigrant women and men with a Latino background, Mansyur et al. (2016) present a gendered dynamic where women face social barriers to T2D through poor family support whereas men face barriers related to work (see also Cherrington et al., 2011). Married men receive the most support whereas unmarried men report receiving the least support (August & Sorkin, 2010). Helgeson et al. (2020) suggest the role of socialization as an explanation for why men in general tend to benefit more from spousal support than women, although the same study also shows how men derive greater benefit from their own communal coping than women, as men tend to be less affected by their spouses. The study also indicates a racial difference; the patients were divided into Black and White participants and men from Black families generally experienced less support from their spouses (Helgeson et al., 2020).

Spousal support is often related to diet, planning meals, buying food, and cooking, reflecting a gendered division of labor, as men trust their wives' ability to select and cook appropriate dishes (Broom & Lenagh-Maguire, 2010; Ponzo et al., 2006). A general finding is that men irrespective of their ethnicity or

race look to their wives for help with managing T2D, and wives willingly assume this responsibility, which reflects a gendered dynamic of giving and receiving care (August & Sorkin, 2010; Helgeson et al., 2020). However, exceptions to these norms are found in men with T2D who identify as homosexuals, calling for a greater focus on the intersections between gendered health practices and sexuality (Broom & Lenagh-Maguire, 2010).

All the publications focus on the gendered dynamics of heterosexual couples, reflecting masculinity and femininity norms in providing and receiving care. Fekete (2007) further unfolds the dynamics through a study of couples in which congruent relationships, where men are patients and women are caregivers, thrive better psychologically than couples defined by the opposite dynamics of women as patients and men as caregivers.

Discussion

Considerations for Future Research on Men's Experiences of Managing T2D

This scoping review indicates a lack of sustained debate in research on men's experiences with T2D and these men's encounters with HPs, as the selected studies have been published in a variety of journals. While gendered differences are included in research on T2D, the studies often reflect a concern with women's experiences of managing T2D (see for instance Legato et al., 2006).

The publications that focus on men's experiences of managing T2D often involve an intersectional approach with a specific emphasis on men from a minority background or ethnic group. Very few studies include encounters between men with T2D and HPs and their respective experiences of these encounters. Research on T2D thus reveals little focus on the gendered dynamics of encounters, although men with T2D commonly encounter female HPs. This review thus indicates a gap in research on men's experiences with T2D and their encounters with health professionals.

The findings suggest a need for further research on how men's performative masculinity practices across varying settings intersect with men's experiences with managing T2D. Of interest in this respect is the extent to which men have similar experiences with the difficulties of managing T2D across racial and ethnic groups. The study by Morgan et al. (2016) includes a similar finding between the health practices associated with the masculinities of rural White men and Hawkins' study of African American and Latino men

in the United States (Hawkins, 2019; Hawkins et al., 2015). These findings indicate a need to explore how masculinity practices intersect with work and regional affiliation.

The gap in research on diabetes also involves men's encounters with HPs, and the experiences of these professionals; such encounters are even less researched than men's experiences with managing T2D. However, research including gendered preferences has been conducted in relation to the design of interventions (instrumental vs. emotional) and general satisfaction with health care (see for instance Arnskov & Diabetesforeningen, 2019), but research is required to enhance our understanding of how gendered dynamics shape the actual encounters between men with T2D and HPs. This aspect of diabetes care is important, as men with T2D are likely to encounter female HPs. Research on HPs' experience of interactions with male patients is required to highlight their knowledge of gendered barriers to men's management of the disease.

Social support constitutes an important theme in the publications focusing on men's experiences with T2D. Overall, men's experiences of social support reflect a gendered dynamic with men receiving support from spouses and their social network to manage T2D. Several publications focus on the experiences of men and women with social support as reflecting a gendered dynamic, as men who identify as living in a heterosexual relationship report receiving more spousal support than women do. This demonstrates the relevance of professional attention to men's social networks, specifically men without a partner or adult children, and continuing research on how men with inadequate social support experience management of T2D.

Most publications are based on qualitative empirical studies involving a limited number of individual or focus group interviews to deepen knowledge of men's subjective experiences. However, none of the studies apply ethnographic methods such as participant observation, which could improve knowledge of how gendered practices in various contexts (work, inpatient and outpatient care, home, and community) intersect with practices of doing T2D.

Another important finding is the very limited use of theoretical frameworks in studies of men's experiences with T2D and their encounters with HPs. While the publications provide a range of empirical data, the research rarely involves the use or development of theoretical concepts that could enhance our understanding of how practices of masculinity intersect with the practices involved in chronic diseases in gendered enactments. Following Hawkins (2019) in her plea to adopt a fluid conception of masculinities, we argue for

the need to continue conceptual development within the field.

Building on Connell and Messerschmidt's argument that masculinities are "configurations of practice that are constructed, unfold and change through time" (Connell & Messerschmidt, 2005, p. 852), future research of men's experiences with T2D should involve an equal focus on practices related to gender, race, class, and regional affiliation. Future research should also identify the heterogeneous experiences of men with T2D who might share the same ethnicity, socioeconomic status, and community but differ in their experiences with T2D. Knowledge of how diabetes intersects with heterogeneous gendered and racial performances is required to enable a fluid understanding of masculinity to counter universalizing approaches to men. This knowledge would enable the continuing development of differentiated diabetes education and interventions to improve the treatment of all patients.

Limitations of the Study

This study is limited by the criterion to include only publications from countries with health care comparable to that of Denmark or the United States. Another limitation is the criterion to include only publications in English, Danish, Swedish, and Norwegian, which emphasizes the need for further research including a more global perspective.

In the process of full-text reading, some studies were excluded because of the criterion to focus exclusively on men's experiences with managing T2D even if these experiences might resemble those of managing other forms of chronic diseases.

Conclusion

Men's experiences with T2D and the experiences of men with T2D of encounters with HPs are underexplored topics in current diabetes research. While several of the identified studies emphasize men's experiences with managing T2D in relation to specifically ethnicity and race, we found that knowledge is still needed on the experiences of men of different ethnicities and socioeconomic status, and men without spousal or social support.

Research on encounters between men and HPs is required to understand their respective experiences of these encounters and collaborations to improve the treatment of T2D. Several studies include a call for differentiated interventions and patient education to help men with T2D. Research on men's experiences of

social support has a particular focus on the role of spousal support, reflecting a gendered pattern involving married men in heterosexual relationships receiving support from their wives to self-manage T2D. This finding calls for greater awareness by HPs of men with T2D who do not have a spouse or lack a close social network.

While this scoping review is based on extensive research literature on T2D, future reviews could explore men's experiences with managing other chronic diseases, as findings from such studies could be relevant to future studies of men's experiences with T2D. Future research could include a relational approach to enhance understanding of diabetes as shaped by gendered enactments and could also explore how gendered dynamics affect collaboration in encounters between HPs and men with T2D.

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Ethical Approval

A scoping review is a secondary analysis of published literature and does not require ethics approval.

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Supplemental Material

Supplemental material for this article is available online.

Note

1. In a study of peer support program interventions across nine countries, Okoro (2016) and Okoro et al. (2017) highlight how men and women with T2D perceive support differently. Their studies of gender issues related to peer support programs focus on the importance of matching peer supporters with care recipients of the same gender. Due to the geographical delimitation of the scoping review, Okoro's study was not included.

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