



Examining stigma in experiences of male breast cancer patients and its impact as a barrier to care: a narrative review

Shayan Raeisi Dehkordi^{1^}, Samantha K. F. Kennedy², Malika Peera¹, Henry C. Y. Wong³, Shing Fung Lee^{4,5}, Muna Alkhaifi^{6*}, Carlos Amir Carmona Gonzalez^{7*}

¹Faculty of Health Sciences, Queen's University, Kingston, ON, Canada; ²Faculty of Health, University of Waterloo, Waterloo, ON, Canada; ³Department of Oncology, Princess Margaret Hospital, Kowloon West Cluster, Hong Kong, China; ⁴Department of Radiation Oncology, National University Cancer Institute, National University Hospital, Singapore, Singapore; ⁵Department of Medicine, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, Singapore; ⁶Department of Medical Oncology & Hematology, Odette Cancer Centre, Sunnybrook Health Science Centre, Toronto, ON, Canada; ⁷Division of Medical Oncology, Department of Medicine, Sunnybrook Health Sciences Centre, Toronto, ON, Canada

Contributions: (I) Conception and design: S Raeisi Dehkordi, M Alkhaifi; (II) Administrative support: M Alkhaifi, CA Carmona Gonzalez, HCY Wong, SKF Kennedy, M Peera; (III) Provision of study materials or patients: M Alkhaifi; (IV) Collection and assembly of data: S Raeisi Dehkordi, M Alkhaifi, CA Carmona Gonzalez; (V) Data analysis and interpretation: All authors; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

*These authors contributed equally to this work as co-senior authors.

Correspondence to: Shayan Raeisi Dehkordi, BHSc Student. Faculty of Health Sciences, Queen's University, 99 University Ave., Kingston, ON K7L 3N6, Canada. Email: shayan.raeisodehkordi@queensu.ca.

Background and Objective: Male breast cancer (MBC) accounts for nearly one percent of all diagnosed breast cancer (BC). In the United States alone, there were 2,670 MBC reported cases and 500 fatalities in 2019. In addition to the general challenges faced by patients to diagnose and treat cancer, MBC patients experience stigma from the medical community and their own feelings of embarrassment. The presence of stigma has a negative impact on the quality of life and psychological outcomes of MBC patients. This narrative review investigates current research on the presence of stigma in the diagnosis and care of MBC patients, and the role of stigma as a barrier to care.

Methods: Current literature on MBC and stigma was found through a search of PubMed and Google Scholar. The search strategy consisted of keywords related to “male breast cancer, stigma, awareness, experiences, and social support”. Studies published from January 2005 to April 2024, that were retrievable and written in English, were included in this review.

Key Content and Findings: Several studies have supported that MBC patients experience stigma due to the lack of awareness in the medical community, and feelings of embarrassment felt by the patients. This stigma is seen through insufficient guidelines on MBC diagnosis and treatment and a lack of male-specific information for BC. These topics of stigma act as barriers to care, as they lead to psychological distress (e.g., anxiety and depression) and delayed diagnoses. Current studies suggest addressing the lack of information and awareness of MBC and implementing screening procedures to mitigate the negative impact of stigma.

Conclusions: This review highlights the presence of stigma in the care of MBC patients and its distressing effects on patients. There is a need for increased awareness among the medical community to improve diagnosis and treatment of MBC patients, to allow for more equitable care. Future therapies should focus on the viability of routine screening programs for male patients and addressing the gap of male-specific information.

Keywords: Male breast cancer (MBC); stigma; awareness; body image

Submitted Apr 16, 2024. Accepted for publication Aug 20, 2024. Published online Sep 23, 2024.

doi: 10.21037/apm-24-67

View this article at: <https://dx.doi.org/10.21037/apm-24-67>

[^] ORCID: 0000-0002-1321-1195.

Introduction

Background

Male breast cancer (MBC) is an extremely rare disease, whose incidence has increased by 40% from 1975 to 2015 (1). While MBC incidence rates have greatly increased compared to breast cancer (BC) in women, MBC still accounts for nearly one percent of total diagnosed BC (2). In 2019, the United States reported 2,670 MBC cases and 500 fatalities due to this disease (3). Despite the rarity of MBC, it remains a significant health concern for male patients, as recent studies have found MBC to have a 5-year survival rate of 77.6%, compared to 86.4% in female breast cancer (FBC) (4,5). This difference in the survival rate of MBC patients raises questions as to the root of this disparity. A narrative review by Abboah-Offei *et al.* summarizes that MBC patients often experience stigma within the healthcare system, which worsens their health outcomes (6). Stigma in healthcare is defined as the labelling, stereotyping, and separation of a group of individuals, leading to discrimination and loss of status (7). In the case of MBC, stigma refers to all barriers found in the healthcare system, social groups, and individual beliefs that prevent MBC patients from receiving effective diagnosis and treatment (7). For example, a comparative analysis of the National Cancer Database by Elimimian *et al.* discovered that nearly 55.3% of MBC patients were diagnosed with stage II or higher BC, compared to only 38% for FBC. MBC patients may face poor health outcomes, such as delayed diagnosis, due to a combination of stigma in the medical community and social groups (8,9).

Rationale and gap in literature

Male patients with BC need comprehensive and accessible care to prevent metastasis and ensure high survival rates (6,10). To provide MBC patients with care that relieves psychological distress and improves quality of life, the patient experience must be effectively optimized during diagnosis and treatment (10). While previous studies have effectively identified the stigma and difficulties MBC patients face, due to lack of awareness, feelings of embarrassment, and poor healthcare guidelines, there has been limited discussion on how these domains of stigma act as barriers to care (6). As such, this narrative review aims to evaluate aspects of stigma experienced by MBC patients and evaluate how this may lead to poor health outcomes. Additionally, by identifying this information,

specific methods and interventions that can minimize the stigma experienced by MBC patients can be discussed. We present this article in accordance with the Narrative Review reporting checklist (available at <https://apm.amegroups.com/article/view/10.21037/apm-24-67/rc>).

Methods

Literature relating to MBC was identified through a literature search spanning from February to April 2024. The searched databases included PubMed and Google Scholar to identify relevant articles on MBC, stigma, awareness, and social support. Specifically, the keywords in the search included [Male breast cancer] AND [stigma] OR [stigmatization] OR [awareness] OR [experiences] OR [social support]. Articles published from January 2005 to April 2024 were included in this review. The articles were selected by two independent reviewers (S.R.D. and M.A.) and any discrepancies were resolved through consensus with a third reviewer (C.A.C.G.). The selection criteria included retrievable articles, written in English, and pertaining to domains of stigma and barriers to care in MBC (Table 1).

Results

Domains of stigma experienced by MBC patients

MBC patients experience various forms of stigma, and each domain contributes to a unique set of challenges faced by patients (6). This review includes the most impactful aspects of stigma experienced by MBC patients, including lack of awareness among healthcare professionals, as well as feelings of embarrassment in MBC patients (7).

Lack of awareness among healthcare professionals

The level of awareness about MBC among healthcare professionals plays a key role in MBC patients' quality of care, diagnosis, and treatment (11). Several studies have conducted interviews and collected quantitative data, to identify gaps in the awareness of the medical community towards MBC (11,12). Common themes include lack of specific data about MBC, lack of a screening process, difficulties with insurance companies to cover testing commonly for women, and more (13).

To diagnose BC in women, screening programs are put in place that involve mammograms every two to three years (14). Guidelines for FBC screening have been

Table 1 The search strategy summary

Items	Specifications
Date of search	February 2024 to April 2024
Databases and other sources searched	PubMed, Google Scholar
Search terms used	[Male breast cancer] AND [stigma] OR [stigmatization] OR [awareness] OR [experiences] OR [social support]
Timeframe	January 2005 to April 2024
Inclusion criteria	Included articles consisted of retrievable full-text articles, written in the English language, and focused on stigma in MBC and/or its impact as a barrier to care
Selection process	Articles were selected individually by two independent reviewers (S.R.D., M.A.) with consensus reached via discussion and third member (C.A.C.G.)

MBC, male breast cancer.

clearly defined, with patients screened every two years on average, while at-risk patients are recommended to undergo mammograms annually (15). A current meta-analysis by Rahman *et al.* determined that mammograms have achieved a 20% reduction in BC mortality in women (15). Another study by Tabár *et al.* reported that the risk of mortality from BC decreased by 31% among FBC patients, over a 29-year period (16). However, Mittmann *et al.* conducted an investigation that determined mammograms are not cost-effective in women, even in the high-risk population (17). As a result, due to the significantly lower incidence of BC in men and the cost of mammograms, routine screening procedures are not justified (18). Oftentimes, BC in men is diagnosed with patients detecting a palpable lump or mass near the breast, and presenting this to their physician (18,19). The lack of clear guidelines on MBC screening appears to be associated with higher stage BC diagnosis in men (19). This is seen in a retrospective study by Co *et al.* that surveyed 56 MBC patients and determined that 67.8% (38/56) of patients presented with lymph node metastasis at diagnosis, and 10.7% (6/56) of patients presented with distant metastasis (stage IV) at the time of diagnosis (11). In contrast, Iqbal *et al.* carried out a cross-sectional study on medical records of 50,924 women with BC and determined that only 5.1% of patients were at stage IV BC, during diagnosis (19). Sahin *et al.* suggested that the comparatively higher incidence of late-stage BC at the time of diagnosis among men is likely due to the lack of screening and limited awareness about MBC (20).

Numerous studies including Potter *et al.* and Chichura *et al.* evaluated physicians' awareness surrounding invasive surgeries in BC (12,13). Invasive surgeries include, but are not limited to: simple mastectomy, modified radical

mastectomy, radical mastectomy, and lumpectomy (21). Based on guidelines from the National Comprehensive Cancer Network (NCCN), if female patients present with the pathogenic BRCA1 or BRCA2 gene mutation, surgeons can discuss the option of a risk-reducing mastectomy with the patient (12,22). This is clearly reflected in a study by Bellavance *et al.*, who surveyed all 2,436 members of the American Society of Breast Surgeons, on their recommendations of a certain type of risk-reducing mastectomy: contralateral prophylactic mastectomy (CPM) (23,24). The authors discovered that 95% of surgeons only felt comfortable performing a CPM, if the patient specifically requested it (23). Similarly, another population-based study by Katz *et al.* surveyed 366 surgeons and determined that 96% of surgeons were reluctant to perform CPM, unless the patient discussed it with the surgeon to perform the procedure (25,26). These two studies emphasize that while surgeons may not recommend CPM freely, they certainly discuss the option of this procedure with the patient (23,25). In contrast, Chichura *et al.* conducted a similar study on MBC surgeons, and evaluated whether they would recommend mastectomies to male patients with BRCA1 or BRCA2 gene mutations (12). Their survey discovered that nearly 18% of surgeons had "no recommendations at all" (12,27,28). Another retrospective study by Elmi *et al.* analyzed the American College of Surgeons National Surgical Quality Improvement Program (NSQIP) database, to determine common surgical procedures in MBC (29). The authors confirmed that risk-reducing mastectomies are rarely conducted in male patients, as surgeons currently have limited guidelines to follow. This is consistent with the included NCCN guidelines for BC in men, as the organization has limited

recommendations for risk-reducing mastectomies for men (30). Importantly, a retrospective cohort study by Li *et al.* sampled 4,405 MBC patients, and determined that CPM is associated with decreased breast-cancer-specific death (31). Given that CPM is beneficial for some patients, the presence of clear guidelines on their application is necessary. This identifies a key gap, as there is less research available to assist surgeons in making informed recommendations regarding MBC, compared to FBC (32). Specifically, these findings demonstrate how stigma and gender biases can lead to inconsistent care among patients of MBC.

A study by Bootsma *et al.* conducted a survey of medical professionals and MBC patients, to determine their unmet information needs about MBC (10). The authors surveyed 77 MBC patients that had been diagnosed between 2011–2016, and 139 healthcare professionals including oncologists, nurse practitioners, oncology nurses, and psychosocial professionals. The questionnaire included topics focused on the acute and late effects of BC, with separate questions for healthcare professionals (10). The study discovered that 110 out of 139 healthcare professionals searched for information on MBC, relating to genetic testing and anti-hormonal therapy, among others. Additionally, nearly 43 of the 77 MBC patients (56%) felt that there was a lack of information about one or more of the late effects of MBC (10). Specifically, patients expressed concerns about the availability of information on sexual activity, including loss of libido and erectile dysfunction (10). Similarly, a literature review by Donovan *et al.* referenced qualitative studies on MBC patients' experiences, and how some patients were not informed about potential sexual dysfunction attributed to their treatment (33). This was also a theme in a qualitative study by Nguyen *et al.* in which 18 MBC patients were interviewed via telephone and many of the participants mentioned that they had decreased libido and sexual activity, due to their anti-hormonal therapy (34,35). They expressed their wish for more information on the effectiveness and side effects of anti-hormonal therapy, specifically how this treatment impacts patients' sexual activity (36). Contrarily, a qualitative study by Foà *et al.* explored unmet information needs in FBC and determined that women were often thoroughly informed of the sexual side-effects of their treatment (37). Evidently, these studies suggest that there is a lack of information about the sexual activity of MBC patients among healthcare professionals, which leads to the patients' unmet concerns.

Feelings of embarrassment

There is a large body of literature on feelings of embarrassment, alienation, and decreased masculinity among MBC patients (11,38). Throughout the past few decades, the understanding of MBC and feelings of emasculation in male patients has been changing. Previous studies, including a phenomenological study by Donovan *et al.* [2007], discovered that 43% of MBC patients reported questioning their masculinity, because of their diagnosis (33,39,40). Similarly, Kipling *et al.* [2014] surveyed 78 MBC patients, to determine the psychological impact of MBC (38). The authors discovered that six of 78 participants (7.7%) experienced feelings of emasculation due to their diagnosis (38). However, a recent study in 2017 by Rayne *et al.* conducted a retrospective file review of 3,000 individuals, identifying 23 MBC patients to include in the sample (41). The patients then participated in a survey to further understand the impact of MBC on their masculinity. Most patients (72%) selected disagree or neutral, with all relevant questions that indicated MBC reduced their feelings of masculinity (41). While patients may experience limited impact on their feelings of manliness due to their MBC diagnosis, other studies highlight feelings of alienation and embarrassment during treatment (11). Therefore, it is important to effectively evaluate how MBC leads to psychological distress in patients, to better identify its role as a barrier to care (42).

A study by Co *et al.* treated 56 MBC patients with a median age of 61 years, to identify reasons for patient embarrassment and its effect on their access to care (11). The authors determined that nearly 64.2% of patients felt moderate (or higher) embarrassment during the presentation of symptoms, and 67.8% of patients experienced this at the breast clinic (11). Oftentimes, patients attributed these feelings to being isolated in the clinic and treatment centers, as there were a greater number of FBC patients present (43,44). This is specifically seen in a study by Midding *et al.* that determined the highest reason of stigma, being 66.7% among MBC patients, is being “*the only men among women*” or “*many women. But me as the only man*”. In fact, their study determined that stigmatization of MBC patients occurs in the hospital, during chemotherapy ($P=0.049$) and radiation ($P=0.017$) treatments (43). Another qualitative study by Nguyen *et al.* interviewed MBC patients, with some mentioning “*there are only women in the hospital... I really felt like an outsider*” (34). Similarly, the

qualitative study by Potter *et al.* references the feelings of exclusion felt by MBC patients, due to the general clinic environment being tailored for women (13). These findings suggest that men feel especially excluded during chemotherapy and radiation therapy while being treated in a clinic filled with female patients, and designed for FBC. The notion of exclusion and embarrassment among the male population plays a key role in their quality of life, as it can lead to psychological distress and delayed access to medical care (45).

Social stigma as a barrier to care

This review has identified the main roots of MBC stigmatization to be the lack of awareness among healthcare professionals and the patients' own feelings of embarrassment (11,12). As such, this stigmatization leads to the creation of barriers for MBC patients when accessing health care.

A study by Brain *et al.* explored the presence of psychological distress, specifically anxiety and depression, in a cohort of MBC patients (45). The authors discovered that symptoms of anxiety were reported in 6% of patients, and depression was reported in approximately one percent of patients (45). While these statistics may not reflect that psychological distress is found in a large portion of MBC patients, it does indicate that distress is present to a certain extent. More importantly, the authors conducted statistical analysis to determine the factor(s) associated with increased anxiety or depression among MBC patients (45). Their findings suggested that anxiety was most likely linked to uncertainty about the future ($P < 0.001$), while depression was associated with altered body image ($P < 0.001$) (45). Patient's uncertainty about the future can largely stem from the lack of MBC-specific information for prognosis and guidelines for care (46). A survey-based study by Ruddy *et al.* sampled 42 MBC patients, with 8% reporting abnormal symptoms of anxiety, and 3% reporting abnormal symptoms of depression (47). The authors suggest these symptoms are likely due to fear of cancer recurrence and negative changes in body image (47,48). Similarly, MBC patients' negative perception towards their body image stems from feelings of embarrassment and isolation. The study by Chichura *et al.* clearly illustrates this, as their survey of MBC patients identified that patients often suffer from altered body image, which leads to the covering of the chest in public spaces (12). Evidently, this suggests that stigma in the form of patient embarrassment and lack of

awareness among healthcare workers negatively influences MBC patient health through symptoms of psychological distress (45).

Furthermore, the current literature supports that MBC patients experience delayed diagnosis due to feelings of embarrassment and lack of awareness (49). The study by Co *et al.* interviewed 56 MBC patients and determined that the time between onset of symptoms to diagnosis ranged from 1 to 10 years among participants. On average, the cohort of participants had a delayed diagnosis by around 14–21 months (11). The authors also suggested that this is mainly due to feelings of embarrassment experienced by patients during hospitalization, as well as lack of awareness amongst the public (11). Similar findings were reported in a study by Altiner *et al.* conducted a survey of 411 general patients in the hospital, ranging from 18–75 years old, and asked them questions about MBC (50). They discovered that 61.1% of participants did not know it was possible for BC to occur in men (50). Furthermore, in another study, 83.9% of MBC patients did not know it was possible for them to develop BC, before their diagnosis (11). To compare these statistics to FBC, a cross-sectional study by Somanna *et al.* included 181 women to determine the time between self-detection of symptoms and confirmed diagnosis (51). The authors discovered that the median time until diagnosis was nearly 3 months. Similarly, Petrova *et al.* conducted a systematic review and meta-analysis on the time from detection of symptoms to diagnosis for FBC patients in different countries of the world and discovered a time range of 1 to 4 months (52). Evidently, MBC patients experience longer periods of time to diagnosis. This identifies the lack of awareness among the general population, as the lack of knowledge regarding MBC can cause one to ignore symptoms. The neglect of symptoms ultimately causes a delay in medical assistance, and thus lengthen the time until diagnosis (51,52).

Addressing unmet needs of MBC patients

There are numerous interventions designed to address the stigma experienced by MBC patients, being the lack of awareness among healthcare workers and patients' feelings of embarrassment (53). It is important to understand how the current healthcare system has addressed the stigma experienced by MBC patients, to identify strategies that have been effective in raising awareness and information. For example, the lack of a consistent screening program in MBC patients has led to delayed diagnoses (53). A study

Table 2 Overview of selected articles on stigma and its role as a barrier to care

Study	Number of participants	Domain of stigma	The role of stigma as a barrier to care
Bootsma <i>et al.</i> [2020]	77	Lack of information about clinical characteristics of MBC (e.g., effect on sexual activity, libido, and more)	Physicians did not address all patient concerns, as many topics of MBC are still unknown by physicians (e.g., anti-hormonal therapy and genetic testing) (10)
Co <i>et al.</i> [2020]	56	Feelings of embarrassment	Men may be reluctant to seek medical treatment, leading to delayed diagnosis (11)
Chichura <i>et al.</i> [2022]	63	Lack of awareness/knowledge among healthcare professionals	Some of the surgeons had “no recommendations” on risk-reducing mastectomies (12)
Midding <i>et al.</i> [2018]	117	Sexual stigmatization, due to focus of care on FBC patients, and lack of male-specific information	Men were denied care by BC specialists. MBC patients underwent exclusion and ignorance, leading to psychological distress (43)
Brain <i>et al.</i> [2006]	161	Negative body image and lack of MBC-specific information	The two forms of stigma lead to anxiety and depression among patients (45)
Altiner <i>et al.</i> [2023]	411	Lack of awareness among men about the possibility of BC occurring in male patients	Decreased awareness, leads to delayed identification of symptoms and seeking medical help, which causes delayed diagnosis (50)
Levin-Dagan <i>et al.</i> [2021]	16	Feelings of embarrassment	Whilst treated in a clinic comprised mostly of female patients, MBC patients felt alienated and isolated (56)

MBC, male breast cancer; FBC, female breast cancer; BC, breast cancer.

by Gaddam *et al.* evaluated 414 asymptomatic men who underwent genetic testing and determined the effectiveness of mammography screening for MBC (54). The authors conducted genetic testing for all patients, to identify potential BRCA1 or BRCA2 gene mutations that could increase the risk of BC (22). Patients with a history of BC or the pathogenic gene mutation were recommended to complete mammograms. Ultimately, 10 patients adhered to the mammogram screening program, which was effective in the early detection of BC in two high-risk patients (54). This rate of diagnosis (two in 10 patients) is very similar for FBC patients undergoing mammography, demonstrating that mammography is beneficial in MBC screening (54). Although the risk of BC in men is low, high-risk patients can benefit from a consistent mammography screening program, to avoid a delayed diagnosis. This is further reflected in the 2020 American Society of Clinical Oncology guidelines, indicating that men with a history of BC or genetic predisposition should undergo annual screening via mammograms (55).

As seen in *Table 2*, studies including Chichura *et al.*, Midding *et al.*, and Altiner *et al.*, among others, reference the lack of male-specific information to address concerns of MBC patients (12,43,50). A mixed-methods systematic

review by Abboah-Offei *et al.* investigated the experiences of MBC patients after diagnosis (6). They also discovered that there is a general lack of information on the care and treatment of MBC patients. Specifically, Bootsma *et al.* suggested that the common concern among MBC patients is the impact of treatment on their body's appearance and sexual activity (10). To minimize patients' psychological distress caused by this form of stigma, a survey-based study by Kipling *et al.* sampled 78 patients and determined that the concerns of MBC patients would be addressed by providing possible images of their post-mastectomy wounds (38). Similarly, Bootsma *et al.* also supported that these images can help ease patients' concerns about their appearance and body image (10).

Lastly, the concept of empathy in healthcare refers to the ability of healthcare professionals to take into consideration the patient's circumstance and perspective, and provide an understanding response (57,58). A qualitative study of 20 FBC patients by Liu *et al.* reported that as patients recognized the caring and empathetic attitude of oncology nurses, they experienced a reduction in stress (59). Yang *et al.* conducted a study with MBC patients, enrolling 256 male patients, and explored the correlation between doctor's empathy, patient stigma, and the strength of the

immune response (57). Their study discovered that there is a statistically significant negative correlation (Pearson correlation coefficient of -0.799 , $P < 0.01$), between patient stigma and doctor's empathy (57). This indicates that as physicians and healthcare professionals provide a more empathetic care to MBC patients, the feelings of stigmatization experienced by MBC patients decrease. Given that physicians often cannot address all questions of MBC patients, they can further adopt an empathetic attitude by willingly and respectfully listening to patient narration (60).

Limitations and future directions

This narrative review conducted a search of PubMed and Google Scholar as the relevant databases. Restricting the search to these two databases could have limited the access to some literature. Future reviews should strive to include a wider variety of databases, including MEDLINE, Embase, and more. Moreover, the search strategy was also restricted to only studies written in English. This acts as a limitation of this review, as relevant studies could have been excluded. However, this methodology is consistent with the aim of this study, as it provides a comprehensive review of selected literature in the field.

Future research should focus on determining the efficacy of screening programs for men, similar to how women are screened every one to two years. While current research suggests men with pathogenic mutations could potentially benefit from screening, there needs to be more studies on the risks and benefits of providing this service to all men. More importantly, such studies should aim to collect data in quantitative methods, as there is a large body of qualitative evidence focused on MBC. While qualitative studies have been effective in identifying domains of stigma in this article, they often lack the statistical power to establish guidelines and generalizations. By emphasizing interventions that address stigma in MBC, the medical community can develop evidence-based policies and changes that ensure equitable diagnosis and treatment for all MBC patients.

Conclusions

Overall, this narrative review investigated the forms of stigma experienced by MBC patients, including lack of awareness among healthcare professionals and feelings of embarrassment experienced by the patients. Importantly,

by comparing these circumstances to those experienced by FBC patients, it becomes clear that MBC patients are disproportionately affected. Moreover, the findings reveal that lack of awareness and knowledge in the medical community, coupled with patients' feelings of alienation, greatly hinder the quality of care received by MBC patients (10,50). These barriers include delayed diagnosis, and symptoms of psychological distress including anxiety and depression, all of which negatively impact patient outcomes (45). Addressing these inequalities in MBC care includes raising awareness about MBC in the medical community and the general population, developing male-specific guidelines for screening and care of patients, and fostering a more empathetic environment for patients (60).

Acknowledgments

Funding: None.

Footnote

Provenance and Peer Review: This article was commissioned by the editorial office, *Annals of Palliative Medicine* for the series "Supportive Care After Breast Cancer: Challenges and Opportunities". The article has undergone external peer review.

Reporting Checklist: The authors have completed the Narrative Review reporting checklist. Available at <https://apm.amegroups.com/article/view/10.21037/apm-24-67/rc>

Peer Review File: Available at <https://apm.amegroups.com/article/view/10.21037/apm-24-67/prf>

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://apm.amegroups.com/article/view/10.21037/apm-24-67/coif>). The series "Supportive Care After Breast Cancer: Challenges and Opportunities" was commissioned by the editorial office without any funding or sponsorship. H.C.Y.W. and M.A. served as unpaid Guest Editors of the series. S.F.L. serves as the unpaid co-chair for the Palliative Radiotherapy Subcommittee of *Annals of Palliative Medicine* from October 2023 to September 2025. The authors have no other conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related

to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

References

- Konduri S, Singh M, Bobustuc G, et al. Epidemiology of male breast cancer. *Breast* 2020;54:8-14.
- Gucalp A, Traina TA, Eisner JR, et al. Male breast cancer: a disease distinct from female breast cancer. *Breast Cancer Res Treat* 2019;173:37-48.
- Mukherjee AG, Gopalakrishnan AV, Jayaraj R, et al. The incidence of male breast cancer: from fiction to reality - correspondence. *Int J Surg* 2023;109:2855-8.
- Zeinomar N, Bandera EV, Qin B. Toward Understanding the Etiology of Male Breast Cancer: An Ongoing Research Challenge. *JNCI Cancer Spectr* 2021;5:pkab079.
- Wang F, Shu X, Meszoely I, et al. Overall Mortality After Diagnosis of Breast Cancer in Men vs Women. *JAMA Oncol* 2019;5:1589-96.
- Abboah-Offei M, Bayuo J, Salifu Y, et al. Experiences and perceptions of men following breast cancer diagnosis: a mixed method systematic review. *BMC Cancer* 2024;24:179.
- Nyblade L, Stockton MA, Giger K, et al. Stigma in health facilities: why it matters and how we can change it. *BMC Med* 2019;17:25.
- Scomersi S, Giudici F, Cacciatore G, et al. Comparison between male and female breast cancer survival using propensity score matching analysis. *Sci Rep* 2021;11:11639.
- Elimimian EB, Elson L, Li H, et al. Male Breast Cancer: A Comparative Analysis from the National Cancer Database. *World J Mens Health* 2021;39:506-15.
- Bootsma TI, Duijveman P, Pijpe A, et al. Unmet information needs of men with breast cancer and health professionals. *Psychooncology* 2020;29:851-60.
- Co M, Lee A, Kwong A. Delayed presentation, diagnosis, and psychosocial aspects of male breast cancer. *Cancer Med* 2020;9:3305-9.
- Chichura A, Attai DJ, Kuchta K, et al. Male Breast Cancer Patient and Surgeon Experience: The Male WhySurg Study. *Ann Surg Oncol* 2022;29:6115-31.
- Potter AM, Bentz B, Crue L, et al. Men's Lived Experiences of Breast Cancer and Changes in Occupation. *Occup Ther Int* 2023;2023:9641922.
- Ren W, Chen M, Qiao Y, et al. Global guidelines for breast cancer screening: A systematic review. *Breast* 2022;64:85-99.
- Rahman WT, Helvie MA. Breast cancer screening in average and high-risk women. *Best Pract Res Clin Obstet Gynaecol* 2022;83:3-14.
- Tabár L, Vitak B, Chen TH, et al. Swedish two-county trial: impact of mammographic screening on breast cancer mortality during 3 decades. *Radiology* 2011;260:658-63.
- Mittmann N, Blackmore KM, Seung SJ, et al. Healthcare and Cancer Treatment Costs of Breast Screening Outcomes among Higher than Average Risk Women. *Curr Oncol* 2023;30:8550-62.
- Gao Y, Heller SL. Breast Cancer Screening in Men. *J Breast Imaging* 2023;5:104-11.
- Iqbal J, Ginsburg O, Fischer HD, et al. A Population-Based Cross-Sectional Study Comparing Breast Cancer Stage at Diagnosis between Immigrant and Canadian-Born Women in Ontario. *Breast J* 2017;23:525-36.
- Sahin C, Ucpinar BA, Mut DT, et al. Male Breast Cancer with Radiological and Histopathological Findings. *Sisli Etfal Hastan Tip Bul* 2020;54:375-9.
- Lim DW, Metcalfe KA, Narod SA. Bilateral Mastectomy in Women With Unilateral Breast Cancer: A Review. *JAMA Surg* 2021;156:569-76.
- Varol U, Kucukzeybek Y, Alacacioglu A, et al. BRCA genes: BRCA 1 and BRCA 2. *J BUON* 2018;23:862-6.
- Bellavance E, Peppercorn J, Kronsberg S, et al. Surgeons' Perspectives of Contralateral Prophylactic Mastectomy. *Ann Surg Oncol* 2016;23:2779-87.
- Scheepens JCC, Veer LV, Esserman L, et al. Contralateral prophylactic mastectomy: A narrative review of the evidence and acceptability. *Breast* 2021;56:61-9.
- Katz SJ, Hawley ST, Hamilton AS, et al. Surgeon Influence on Variation in Receipt of Contralateral Prophylactic Mastectomy for Women With Breast Cancer. *JAMA Surg* 2018;153:29-36.
- Jagsi R, Hawley ST, Griffith KA, et al. Contralateral Prophylactic Mastectomy Decisions in a Population-Based Sample of Patients With Early-Stage Breast Cancer. *JAMA Surg* 2017;152:274-82.
- Falco G, Rocco N, Bordoni D, et al. Contralateral risk

- reducing mastectomy in Non-BRCA-Mutated patients. *Open Med (Wars)* 2016;11:238-41.
28. Noditi A, Caragheorghe G, Stoleru S, et al. Contralateral Prophylactic Mastectomy in Patients with Breast Cancer. *Chirurgia (Bucur)* 2021;116:73-83.
 29. Elmi M, Sequeira S, Azin A, et al. Evolving surgical treatment decisions for male breast cancer: an analysis of the National Surgical Quality Improvement Program (NSQIP) database. *Breast Cancer Res Treat* 2018;171:427-34.
 30. Gradishar WJ, Moran MS, Abraham J, et al. NCCN Guidelines® Insights: Breast Cancer, Version 4.2021. *J Natl Compr Canc Netw* 2021;19:484-93.
 31. Li K, Wang B, Yang Z, et al. Nomogram Predicts the Role of Contralateral Prophylactic Mastectomy in Male Patients With Unilateral Breast Cancer Based on SEER Database: A Competing Risk Analysis. *Front Oncol* 2021;11:587797.
 32. Kiluk JV, Lee MC, Park CK, et al. Male breast cancer: management and follow-up recommendations. *Breast J* 2011;17:503-9.
 33. Donovan T, Flynn M. What makes a man a man? The lived experience of male breast cancer. *Cancer Nurs* 2007;30:464-70.
 34. Nguyen TS, Bauer M, Maass N, et al. Living with Male Breast Cancer: A Qualitative Study of Men's Experiences and Care Needs. *Breast Care (Basel)* 2020;15:6-12.
 35. Quincey K, Williamson I, Winstanley S. 'Marginalised malignancies': A qualitative synthesis of men's accounts of living with breast cancer. *Soc Sci Med* 2016;149:17-25.
 36. Dinda S. Anti-hormones: mechanism and use in treatment of breast cancer. *Clin Lab Sci* 2012;25:45-9.
 37. Foà C, Guarnieri MC, Basciu V, et al. The unmet needs of women with breast cancer: a qualitative research. *Acta Biomed* 2022;93:e2022153.
 38. Kipling M, Ralph JE, Callanan K. Psychological impact of male breast disorders: literature review and survey results. *Breast Care (Basel)* 2014;9:29-33.
 39. Thompson EH Jr, Haydock AS. Men's Lived Experiences with Breast Cancer: The Double Consciousness of Marginal Men. *Sex Roles* 2020;82:28-43.
 40. Constantinou N, Marshall C, Marshall H. Discussion and Optimization of the Male Breast Cancer Patient Experience. *J Breast Imaging* 2023;5:339-45.
 41. Rayne S, Schnippel K, Thomson J, et al. Male Breast Cancer Has Limited Effect on Survivor's Perceptions of Their Own Masculinity. *Am J Mens Health* 2017;11:246-52.
 42. Ishii T, Nakano E, Watanabe T, et al. Epidemiology and practice patterns for male breast cancer compared with female breast cancer in Japan. *Cancer Med* 2020;9:6069-75.
 43. Midding E, Halbach SM, Kowalski C, et al. Men With a "Woman's Disease": Stigmatization of Male Breast Cancer Patients-A Mixed Methods Analysis. *Am J Mens Health* 2018;12:2194-207.
 44. Midding E, Halbach SM, Kowalski C, et al. Social Support of Male Breast Cancer Patients-a Mixed-Methods Analysis. *Am J Mens Health* 2019;13:1557988319870001.
 45. Brain K, Williams B, Iredale R, et al. Psychological distress in men with breast cancer. *J Clin Oncol* 2006;24:95-101.
 46. Schröder CP, van Leeuwen-Stok E, Cardoso F, et al. Quality of Life in Male Breast Cancer: Prospective Study of the International Male Breast Cancer Program (EORTC10085/TBCRC029/BIG2-07/NABCG). *Oncologist* 2023;28:e877-83.
 47. Ruddy KJ, Giobbie-Hurder A, Giordano SH, et al. Quality of life and symptoms in male breast cancer survivors. *Breast* 2013;22:197-9.
 48. da Silva TL. Male breast cancer: Medical and psychological management in comparison to female breast cancer. A review. *Cancer Treatment Communications* 2016;7:23-34.
 49. Contractor KB, Kaur K, Rodrigues GS, et al. Male breast cancer: is the scenario changing. *World J Surg Oncol* 2008;6:58.
 50. Altiner S, Altiner ÖT, Büyükskasap Ç, et al. Analysis of Knowledge About Male Breast Cancer Among Patients at Tertiary Medical Center. *Am J Mens Health* 2023;17:15579883231165626.
 51. Somanna SN, Nandagudi Srinivasa M, Chaluvarayaswamy R, et al. Time Interval between Self-Detection of Symptoms to Treatment of Breast Cancer. *Asian Pac J Cancer Prev* 2020;21:169-74.
 52. Petrova D, Garrido D, Špacířová Z, et al. Duration of the patient interval in breast cancer and factors associated with longer delays in low-and middle-income countries: A systematic review with meta-analysis. *Psychooncology* 2023;32:13-24.
 53. Woods RW, Salkowski LR, Elezaby M, et al. Image-based screening for men at high risk for breast cancer: Benefits and drawbacks. *Clin Imaging* 2020;60:84-9.
 54. Gaddam S, Heller SL, Babb JS, et al. Male Breast Cancer Risk Assessment and Screening Recommendations in High-Risk Men Who Undergo Genetic Counseling and Multigene Panel Testing. *Clin Breast Cancer* 2021;21:e74-9.
 55. Hassett MJ, Somerfield MR, Baker ER, et al. Management of Male Breast Cancer: ASCO Guideline. *J Clin Oncol*

- 2020;38:1849-63.
56. Levin-Dagan N, Baum N. Passing as normal: Negotiating boundaries and coping with male breast cancer. *Soc Sci Med* 2021;284:114239.
 57. Yang N, Cao Y, Li X, et al. Mediating Effects of Patients' Stigma and Self-Efficacy on Relationships Between Doctors' Empathy Abilities and Patients' Cellular Immunity in Male Breast Cancer Patients. *Med Sci Monit* 2018;24:3978-86.
 58. Eby D. Empathy in general practice: its meaning for patients and doctors. *Br J Gen Pract* 2018;68:412-3.
 59. Liu JE, Mok E, Wong T. Caring in nursing: investigating the meaning of caring from the perspective of cancer patients in Beijing, China. *J Clin Nurs* 2006;15:188-96.
 60. Spencer AC. Stories as Gift: Patient Narratives and the Development of Empathy. *J Genet Couns* 2016;25:687-90.

Cite this article as: Raeisi Dehkordi S, Kennedy SKF, Peera M, Wong HCY, Lee SF, Alkhaifi M, Carmona Gonzalez CA. Examining stigma in experiences of male breast cancer patients and its impact as a barrier to care: a narrative review. *Ann Palliat Med* 2024;13(5):1291-1300. doi: 10.21037/apm-24-67