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How is patient-centred care addressed in women's health? A theoretical rapid review

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PCCW_theoretical_review.png

REVIEW
Theoretical review of patient-centered care for women
Gagliardi et al

How is patient-centred care addressed in women's health? A theoretical rapid review

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Abstract

Purpose:

Efforts are needed to reduce gendered inequities and improve health and well-being for women. Patient-centred care (PCC), an approach that informs and engages patients in their own health, is positively associated with improved care delivery, experiences and outcomes. This study aimed to describe how PCC for women (PCCW) has been conceptualized in research.

Methods:

We conducted a theoretical rapid review of PCCW in four health conditions. We searched MEDLINE, EMBASE, CINAHL, SCOPUS, Cochrane Library, and Joanna Briggs index for English-language articles published from January 2008 to February 2018 inclusive that investigated PCC and involved at least 50% women aged 18 or older. We analyzed findings using a 6-domain PCC framework, and reported findings with summary statistics and narrative descriptions.

Results:

After screening 2,872 unique search results, we reviewed 51 full-text articles, and included 14 (5 family planning, 3 preventive care, 4 depression, 1 cardiovascular disease or rehabilitation). Studies varied in how they assessed PCC. None examined all 6 PCC framework domains; least evaluated domains were addressing emotions, managing uncertainty, and enabling self-management. Seven studies that investigated PCC outcomes found a positive association with appropriate health service use, disease remission, health self-efficacy, and satisfaction with care. Differing views about PCC between patients and physicians, physician PCC attitudes, and geographic affluence influenced PCC. No studies evaluated the influence of patient characteristics or tested interventions to support PCCW.

Conclusion:

A paucity of research has explored or evaluated PCCW in the conditions of interest. We excluded many studies because they arbitrarily labelled many topics as PCC, or simply concluded that PCC was needed. More research is needed to fully conceptualize and describe PCCW across different characteristics and conditions, and to test interventions that improve PCCW. Policies and incentives may also be needed to stimulate greater awareness and delivery of PCCW.

Keywords:

equity, quality, outcomes, determinants, policies, interventions

Strengths and limitations of this study

- This may be the first synthesis to describe patient-centred care (PCC) specifically for women across multiple clinical areas
- We used rigorous methods for a theoretical, rapid review that complied with standards for the conduct of electronic search strategies and for reporting of methods and findings
- We employed an established patient-centred care (PCC) framework to analyze included studies, thereby identifying limitations in how PCC has been explored or measured
- The methodologic approach and interpretation of findings were guided by a multidisciplinary research team comprised of health services researchers, physicians, experts in women's health, and consumer representatives
- Few studies were included because our search may not have identified all relevant studies and our eligibility criteria may have been overly stringent

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Introduction

Patient-centered care (PCC) refers to engaging patients (and families or care partners) in their own individual health care and also to engage patients (or communities) in health care service co-design so that all patients benefit from PCC.[1] At the individual level, PCC improves patient knowledge, relationship with providers, service experience and satisfaction, treatment compliance, appropriate health care use, health outcomes, and cost-effectiveness of service delivery.[2-4] However, many patients do not receive or experience PCC.[5] Improving PCC requires a thorough understanding of what comprises PCC to serve as the basis for measurement, and the design and implementation of strategies to promote and support PCC. Currently, few instruments are available to specifically measure PCC, and they each measure different dimensions of care delivery and the care experience.[6] Furthermore, some instruments were developed largely by health care professionals, and may not capture patients' views about what constitutes PCC.[7] Clearly, more research is needed to better conceptualize, measure, and improve PCC for individual patients.

PCC is not a new concept yet there is currently no standard definition, and the term PCC is used synonymously with other concepts, including quality of care, a much broader concept of which PCC is a component.[8] PCC frameworks emphasize that it is an approach to care based on patient-provider interaction,[9] and literature reviews and stakeholder consensus concur. Indeed, several initiatives employed rigorous processes to characterize PCC. A systematic review of the literature for PCC definitions followed by a Delphi survey involving an international panel of stakeholders including patients generated consensus on the most important dimensions of PCC: patient as unique person, patient involvement in care, patient information, patient-clinician communication, and patient empowerment.[10,11] A scoping review of 19 studies published from 1994 to 2011 identified 25 unique frameworks or models of PCC.[12] The frameworks and models differed by number and type of domains, but included one or more elements within common domains pertaining to the patient-provider relationship (sharing information, empathy, empowerment), partnership (sensitivity to needs, relationship-building), and health promotion (collaboration, case management, resource use). McCormack et al established a comprehensive PCC framework based on systematically reviewing literature and relevant theories, observing 38 medical encounters between cancer patients and oncologists, interviewing those 38 patients, and then reviewing the proposed domains with a 13-member expert panel to refine the framework.[13] The resulting PCC framework included 31 sub-domains within six interdependent domains: fostering clinician-patient relationships, exchanging information, recognizing and responding to patient emotions, managing uncertainty, making decisions, and enabling patient self-management.

In 1995, the Fourth World Conference on Women of the United Nations revealed the need to deliver services that are sensitive to the needs and preferences of women,[14] and in 2009 the World Health Organization report, “Women and Health”, emphasized the need to improve the quality of women's health care services.[15] For example, over-medicalization of female-specific conditions such as menopause has led to creation and overtreatment of new “diseases”, and confusion and anxiety among women about the best options for maximizing their health.[16] For other conditions common to men and women such as cardiovascular disease, research suggests that there is inequitable access to evidence-based health services; women are less often referred for diagnostic and therapeutic interventions and, once referred, are treated less effectively than men.[17] Monitoring by the United Nations continues to show that gender-imposed disparities influence women’s health; as a result, ensuring healthy lives and promoting well-being for women remains one of 17 goals in the “Gender Equality in the 2030 Agenda for Sustainable Development” issued in 2018.[18] PCC for women (PCCW) stands to improve women’s health care experiences and associated outcomes. Given lack of consensus on what constitutes PCC, we similarly lack an understanding of PCCW, and how that differs among women with different health conditions or characteristics. The purpose of this study was to review the literature on how PCC was conceptualized or measured in research involving women. That knowledge could be used in the future as the basis for ongoing research, and for health care planning, evaluation and quality improvement.

Methods

Approach

There are many types of research syntheses employing varying methods to address different types of research questions. As part of a larger study of how to support PCCW, our goal was to describe how PCCW has been conceptualized; in future research, we will elaborate the PCCW concept by interviewing patients and clinicians. Hence, we chose a theoretical review as the methodological approach.[19] A theoretical review is characterized by a comprehensive search strategy, inclusion of conceptual and empirical primary sources, explicit study selection, no quality appraisal, and content analysis of included items. To quickly describe PCCW so that it could be refined in subsequent components of the larger study, we also adopted a rapid review approach. A rapid review is characterized by restriction to a single language (English), a short time frame (last ten years, 2008+), exclusion of grey literature, one person performs screening and data abstraction (ARG), quality of included studies is not appraised, and authors of included studies are not contacted.[20,21] As there are no reporting criteria specific to theoretical or rapid reviews, we employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses criteria to guide reporting of the methods and findings.[22] Data were publicly available so institutional review board approval was not needed. We did not register a protocol for this review.

Planning

To become familiar with the literature, we conducted a preliminary search of MEDLINE. The search employed a broad lens to capture concepts related to all aspects of health care quality including gender among women, and to also capture studies about PCC that did not necessarily use that label. Using the Medical Subject Headings (MeSH) “patient-centered care” AND [wom#n or female], the search generated nearly 31,000 results published from 2008 to February 9, 2018 on a diffuse range of topics not necessarily related to PCC, which would have required considerable screening time and effort. Instead, we were interested in a more focused review to assess whether and how others have specifically studied PCC, possibly identifying gaps in knowledge that our future research could address. Therefore, we opted for a more targeted strategy, and subsequently searched for only studies in which the focus was explicitly labelled as PCC.

Eligibility criteria

Knowledge gained from the preliminary search was used to generate eligibility criteria for the planned review based on the PICO (participants, intervention, comparisons, outcomes) framework. The PICO framework is commonly used in systematic reviews to optimize searching and screening. Participants referred to adult women (age 18+) with specific health care concerns or conditions in need of improvement. These conditions were chosen based on the proceedings of the Fourth World Conference on Women,[14] and on recommendations by collaborators of our larger research study (who included health services researchers, clinician investigators, and representatives of professional societies, disease-specific foundations, quality improvement and monitoring agencies, patient advocacy groups, patients and consumers) because they are prevalent health concerns for women, or common to both men and women but requiring improved equity or quality of care for women, and represent the full lifespan: family planning, preventive care, depression, and cardiovascular disease or cardiac rehabilitation. Participants also included physicians or nurses in any setting of care (primary, secondary, tertiary) who cared for women with these conditions. Interventions explicitly referred to PCC, or a synonymous term such as person-, women-, client-, or family-centred care, or approaches or strategies to promote or support PCC. For the purpose of screening, PCC was viewed as compassionate, respectful care that addresses patient values and preferences, as well as information and supportive care needs, thus requiring patient-level engagement and patient-provider interaction. To reflect this, we adopted McCormack et al.'s conceptualization of PCC in six domains: fostering patient-clinician relationship, exchanging information, recognizing and responding to patient emotions, managing uncertainty, making decisions, and enabling patient self-management.[13] With respect to comparisons, we deemed studies eligible if they explored patient or clinician views about what constitutes PCCW or how to improve PCCW, identified determinants of PCCW including enablers or barriers, or evaluated the impact of strategies designed to promote or support PCCW (by comparing patients or clinicians with and without exposure to PCCW strategies, or before or after exposure to strategies, or receiving different types of strategies). Outcomes included but were not limited to awareness, understanding, experiences or impacts of PCCW, or determinants or factors influencing any of these functions, or the impact of strategies implemented to support or improve PCCW. Regarding publication type, eligible study designs included English language qualitative (interviews, focus groups, qualitative case studies), quantitative (questionnaires, randomized controlled trials, time series, before/after studies, prospective or retrospective cohort studies, case control studies) or mixed methods studies. Although systematic reviews were not eligible (to avoid duplication of studies included in reviews and by our search), if deemed relevant, we screened their references to identify additional eligible primary studies.

Searching

We developed our search strategy in conjunction with a medical librarian and complied with the Peer Review of Electronic Search Strategy reporting guidelines (Table 1).[23] We searched MEDLINE, EMBASE, CINAHL, and SCOPUS on February 26, 2018 from 2008 to that date. We also searched the Cochrane Library and the Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports for relevant systematic reviews to screen references. We searched for studies that explicitly used the term "patient-centered", or an alternative spelling or synonymous option. We supplemented that keyword search with MeSH terms reflecting the concept of PCC to identify studies that employed a synonymous term for PCC that we had not considered, then combined those searches with terms for women.

Table 1 MEDLINE search strategy

1. women's health/ (25422)
2. women/ (14247)
3. female/ (7835541)
4. 1 or 2 or 3 (7839777)
5. patient satisfaction/ (71947)
6. personal satisfaction/ (15404)
7. Patient Preference/ (5969)
8. Patient-Centered Care/ (15651)
9. (patient centered or patient-centered or patient centred or patient-centred).mp. (27001)
10. (person centered or person-centered or person centred or person-centred).mp. (3883)
11. (wom#n centered or wom#n-centered or wom#n centred or wom#n-centred).mp. (450)
12. professional-patient relations/ (24731)
13. Health Communication/ (1437)
14. Health Equity/ (367)
15. Health Services Accessibility/ (63814)
16. Patient Participation/ (22042)
17. 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 (220827)
18. 4 and 17 (110430)
19. limit 18 to (english language and yr="2008 -Current" and "all adult (19 plus years)") (50343)
20. limit 19 to (comment or editorial or interview or lectures or letter or news) (493)
21. 19 not 20 (49850)
22. 8 or 9 or 10 or 11 (30272)
23. 4 and 22 (8723)
24. limit 23 to (english language and yr="2008 -Current" and "all adult (19 plus years)") (5055)
25. limit 24 to (comment or editorial or interview or lectures or letter or news) (26)
26. 24 not 25 (5029)
27. depression/ (99502)
28. 26 and 27 (161)
29. cardiac rehabilitation/ (1535)
30. Cardiovascular Diseases/ (128523)
31. 26 and 29 (4)
32. 26 and 30 (60)
33. family planning services/ or reproductive health services/ (25063)
34. 26 and 33 (28)
35. Preventive Health Services/ (12323)
36. Health Promotion/ (65178)
37. Healthy Lifestyle/ (499)
38. 35 or 36 or 37 (76434)
39. 26 and 38 (116)

Screening

ARG screened titles and abstracts of search results according to the PICO-based eligibility criteria specified above, and generated criteria for ineligible studies prospectively with screening. Studies were not eligible if the participants were: family members, care givers or care partners, allied health care professionals (ie. pharmacists, dentists) or trainees; or patients or clinicians in long-term care, residential or end-of-life care settings; or where women comprised less than 50% of participants, or the number of women were not stated. Studies were not eligible if they involved patients in organizational planning, evaluation or improvement (rather than their own care), or when involvement in co-design was said to have generated a patient-centred service/intervention; mentioned but did not define or describe what was meant by PCC; or did not study PCC but concluded their research contributes to an understanding of how to deliver or achieve PCC, or shows that PCC is needed. Many studies that arbitrarily referred to PCC in the study of any program, service, treatment or management of a patient were not eligible. This included studies that focused on the illness experience or clinical treatment preferences or satisfaction with treatment/services, or health-related quality of life and not the care experience; explored enablers or barriers of the use of health care services only; focused on collaborative or integrated or coordinated or multidisciplinary or interdisciplinary care; patient-centered medical home; motivational interviewing or counselling of patients; concerned interventions delivered by peers or lay persons; patient preferences for clinical outcomes (patient-reported outcomes); and web-based, computer-based or smart phone-based electronic applications for patients. Articles that singly focused information needs, decision-making, self-management, therapeutic alliance, or empathy were also excluded because they examined only one aspect, and not the multiple domains that comprise PCC.[13] Studies were not eligible if they were protocols, editorials, commentaries, letters, news items, meeting abstracts or proceedings; or conceptual or empirical studies published in a language other than English.

Data extraction

From each study ARG extracted and tabulated data on study characteristics including author, publication year, country, study objective, research design, participants, term used to refer to PCC, definition or description of PCC, and findings. If an intervention was employed, ARG also extracted data on content (information/knowledge conveyed), format (mode of delivery, single or multi-faceted), timing (duration, frequency), participants (number, type, setting) and personnel who delivered the intervention according to the Workgroup for Intervention Development and Evaluation Research reporting standards for behavioural interventions.[24]

Data analysis

We used summary statistics to report the number of studies published per year, and by condition, country, study design, and term used for PCC. We compared definitions or descriptions of PCC across studies and conditions. We analyzed definitions or descriptions of PCC employed in studies with McCormack's six-domain PCC framework.[13] To identify gaps in the way PCCW was studies, we summarized the number of domains addressed in each included study. Instruments used to measure PCC were specified. We described the impact and determinants of PCC narratively, and the number of studies that evaluated interventions designed to promote, support or improve PCC. Team members, which included health services researchers, physicians of various specialties and experts in women's health, independently reviewed data and the draft manuscript, and provided feedback that shaped the interpretation of results and conclusions.

Patient and Public Involvement

This study was informed by a research team that included researchers, collaborators, and two consumer representatives. All team members took part in a planning teleconference during which the review objective and eligibility criteria were established.

Results

Search results

We identified a total of 2,872 unique citations, and excluded 2,821 upon screening of titles and abstracts. Among the remaining 51 full-text articles considered, we excluded 36 because conditions were not relevant (n=10), PCC was not defined (n=7), study participants were less than 50% women or the study was not specific to PCCW (n=3), or the study focused on treatment preferences (n=3), clinical services (n=3), e-applications (n=2), the illness experience (n=2), self-management (n=2), involvement of patients in service co-design rather than their own care (n=1), or decision-making, which is relevant but not a comprehensive assessment of PCC (n=1). We excluded two additional studies due to publication type (n=1) and because participants were trainee physicians (n=1). Ultimately, we included 14 studies for review (Figure 1). Data extracted from eligible studies are available in supplemental file 1.[25-38]

Study characteristics

Studies were published from 2008 to 2017. Most employed the term “patient-centred care” (n=13); 1 study referred to “woman-centred care”. Most studies were conducted in the United States (n=10) followed by one each in Australia, China, Iran, and Scotland. By condition, studies included 1 on cardiovascular disease, 3 on preventive care, 5 on family planning, and 5 on depression. With respect to study design, most studies were statistical analyses of survey data to examine the association of PCC with receipt of treatment or outcomes (n=6). Other studies involved qualitative interviews with women to describe PCCW (n=3) or qualitative observation of patients and clinicians to assess if PCCW occurred during consultations (n=3). Two studies were concept analyses to describe an approach for delivering PCCW. Seven (50.0%) studies focused solely on women: 1 on preventive care, 5 on family planning, and 1 on depression; the remaining 7 studies were included because they involved at least 50% women: 1 on cardiovascular disease, 2 on preventive care, and 4 on depression.

PCCW definition

Table 2 summarizes the definition or domains of PCC employed or measured, or the definition or domains of PCCW generated by each study. No study addressed all 6 PCC domains, although 4 studies addressed 5 domains and 6 studies addressed 4 domains. The domains most frequently addressed by the 14 studies were exchanging information (n=13), making decisions (n=12), and fostering the relationship (n=11). Domains addressed less frequently by the 14 studies were addressing emotions (n=7), managing uncertainty (n=7), and enabling self-management (n=5). One study that explored factors influencing decisions about routine Papanicolaou testing or mammography also found that women desired access to a female physician and a woman-only environment.

Table 2 PCC definitions, descriptions or components measured in included studies

Study	Fostering the relationship	Exchanging information	Addressing emotions	Managing uncertainty	Making decisions	Enabling self-management	Domains per study (n)
	• Discuss roles and responsibilities • Honesty and openness • Trust in clinician competence • Express caring • Build rapport	• Explore needs and preferences • Share information • Provide information resources • Assess and facilitate understanding	• Explore and identify emotions • Assess anxiety or depression • Validate emotions • Express empathy or reassurance • Provide help to deal with emotions	• Define uncertainty • Assess uncertainty (cognitive) • Use emotion-focused management strategies (affective) • Use problem-focused management strategies (behavioural)	• Communicate about decision needs, support and process • Prepare for deliberation and decision • Make and implement a choice and action plan • Assess decision quality and reflect on choice	• Learn and assess • Share and advise • Prioritize and plan • Prepare, implement and assist • Arrange and follow-up	
Liang 2017 (26)	x	x			x	x	4
Callegari 2017 (29)		x	x	x	x		4
Morse 2017 (30)	x	x			x		3
Wang 2017	x	x	x		x		4

(34)							
Esmaeili 2016 (25)	x	x	x	x	x		5
Dehlendorf 2016 (31)	x	x		x	x	x	[illegible]
Finney Rutten 2016 (35)		x	x	x	x		[illegible]
Rossum 2016 (36)		x		x	x	x	[illegible]
Pilgrim 2014 (32)	x	x		x	x		[illegible]
Jani 2012 (37)	x	x	x		x	x	[illegible]
Yee 2011 (33)	x	x	x	x	x		[illegible]
Peters 2010 (27)	x	x				x	[illegible]
Chapman 2008 (38)	x	x					[illegible]
Lasser 2008 (28)	x		x		x		[illegible]
Studies including domains (n)	11	13	7	7	12	5	

PCCW measurement

Seven (50.0%) studies employed existing, validated instruments to measure PCC. They included the Interpersonal Quality in Family Planning Scale,[31] Client-Clinician Centeredness Scale,[32] Patient-Practitioner Orientation Scale,[34] Patient Assessment of Chronic Illness Care Survey,[36] Consultation and Relational Empathy Questionnaire,[37] and Measure of Patient-Centred Communication.[37,38]

Impact of PCCW

Seven (50.0%) studies examined PCCW outcomes. Two qualitative studies explored aspects of PCC that influenced receipt of preventive services including routine Papanicolaou testing or mammography,[27] and flu vaccine or colorectal cancer screening,[28] and one survey study found that

PCC increased receipt of preventive services monitoring of blood pressure or cholesterol, routine check-up, blood stool test, breast exam, mammography, Papanicolaou testing, as well as exercise and diet education.[26] Two survey studies of family planning found that PCC improved sustained use of chosen contraceptive method six months later,[31] and satisfaction with care in family planning programs.[32] Among patients with depression, studies showed that PCC was positively associated with health self-efficacy for dealing with feelings of uncertainty about health or health care,[35] and remission of depression at six months and rating of care quality.[36]

PCCW determinants

Three studies, all based on depression care, examined challenges or barriers of PCC. A survey study found that patients and physicians differed in their preferences for patient-centred communication.[34] A study involving observation of consultations showed that PCC was less likely in less affluent areas compared with those more affluent.[37] That study also examined physician behaviour; physicians in deprived areas looked at patients fewer times, and used fewer head nods and fewer positive facial expressions. Another study involving observation of consultations found that physician attributes influenced PCC: higher dutifulness was positively associated with treating patients as whole persons and finding common ground while those exhibiting anxiety or vulnerability scored lower for finding common ground.[38] No studies examined whether or how women's characteristics influenced preferences for or receipt of PCC.

Strategies to support PCCW

None of the 14 included studies developed, implemented or evaluated the impact of an intervention to promote or support PCCW.

Discussion

This theoretical rapid review identified a paucity of research on PCCW across four conditions. Moreover, none of the studies addressed all 6 domains of the comprehensive McCormack et al PCC framework,[13] with half of the studies or fewer evaluating the domains of addressing emotions, managing uncertainty, and enabling self-management. Each study defined, described or measured PCC differently, and half of the studies employed an existing validated instrument (scale or questionnaire) to assess PCC. Three studies examined barriers to PCC, which were differences between patients and physicians about the importance of PCC domains, physician personality characteristics, and receiving care in less affluent areas. No studies examined whether or how women's characteristics influenced preferences for or receipt of PCC, though one study found that geographic affluence influenced PCC. Of the 7 (50.0%) studies that examined the impact of PCC, all found that PCC was positively associated with uptake of preventive care tests or education, health self-efficacy, satisfaction with care, contraception use, and remission of depression. No studies examined interventions to promote or support PCCW.

The 1995 United Nations Fourth World Conference on Women, considered a springboard to gender equality by setting a 12-point agenda for the advancement of women, was adopted by 189 countries.[14] One of the 12 points was women and health, which referred to improving quality of care, strengthening preventive programs, and addressing gender-sensitive issues such as family planning. Hence, it is surprising that little research on the conditions we examined specifically studied PCCW. A few factors might contribute to the paucity of research on PCCW. One reason may be lack of clarity and agreement on what constitutes PCC.[8] Notably, we excluded a large number of studies because they arbitrarily used PCC to refer to a wide variety of health care issues, or failed to define PCC, or employ or generate a comprehensive PCC framework. Another reason may be a lack of policy or system guidance and incentives for PCCW. For example, Wiig et al. found that health policy in 10 European countries did not specify mechanisms to improve healthcare quality.[39] Gauld et al. found that primary care policies in 7 countries only recently identified quality and safety as important platforms.[40] The more recent "Gender Equality in the 2030 Agenda for Sustainable Development", released in 2018, confirms the need for efforts to improve health and health care for women.[18] To achieve this, among other action items, the report recommends integrated policies and associated incentives to achieve goals. Future research should examine whether and how legislation and policies recognize and promote PCCW, and how those laws and policies are interpreted and implemented. This may reveal the approaches and interventions needed to create greater awareness and delivery of PCCW.

Another key finding was that each study defined and measured PCC differently. Given that few studies were eligible, it is unclear if observed variations in conceptualizing or operationalizing PCC mean that PCCW differs for different conditions. Research by others that explored the perspectives of men and women with different conditions appear to also have generated different domains or dimensions of PCC.[41-43] Moreover, patients' PCC needs may vary depending on whether the aim is to understand their condition, decide on treatment, or plan self-management,[44] and may also vary along their illness trajectory or according to demographic or cultural characteristics.[45] Future research could employ similar methods for reviewing literature on PCCW for other conditions, and along with our ongoing research involving interviews with women who vary by condition and characteristics, may generate further insight and advance our understanding of how to optimize PCCW. Other researchers have noted that available instruments purported to evaluate PCC each measure different dimensions of care delivery and the care experience, and called for more instruments to be developed.[5] The findings of our study suggest that, first, more research is needed to fully define and describe PCCW to understand commonalities and where important condition- or characteristic-specific differences lie.

This review, and previous research found that PCC is associated with improved care delivery and outcomes.[2-4] However, few studies specifically examined facilitators or barriers of PCC, and no studies evaluated interventions to promote or support PCCW. A Cochrane systematic review by Baker et al. found that interventions that had been selected and tailored to address identified barriers of guideline-adherent clinical care were more likely to improve professional practice compared with either no intervention or simple dissemination of guidelines.[46] Therefore, in addition to research already suggested, more study is needed of the determinants of PCCW, as this knowledge is needed to select and tailor interventions that would improve PCCW and associated outcomes.

This review features strengths and limitations. We employed a review approach most suitable to our research objective, and searched the most relevant databases of medical literature with a search strategy that complied with standards,[23] and we compared PCCW across four conditions, two specific to women, and two common to men and women. A few issues may limit the interpretation and use of these findings. Given the rapid review approach involving a single screener and no review of grey literature, we may not have identified all relevant studies. While our search strategy was comprehensive, it may have omitted potentially relevant terms. Our exclusion criteria may have been overly stringent and eliminated potentially relevant studies that may have examined topics relevant to PCC; however, our intent was to examine whether PCC as a multi-domain concept had been thoroughly evaluated to inform future research. Due to the small number of included studies, and with only half of included studies solely focused on women, future research is necessary to establish a more definitive PCCW framework for women with different characteristics or conditions. Still, this may be the first study to examine whether and how PCCW has been investigated, and it raises a number of implications and issues that warrant ongoing research.

Conclusion

International policy and advocacy efforts have emphasized the need to improve the quality and experience of care for women with different health care issues across the lifespan. PCC, an approach that informs and engages patients in their own health care that is positively associated with improved health care experiences and outcomes, is also an international priority. Yet this review identified few studies that explored or evaluated PCCW concerning family planning, preventive health care services, depression, and cardiovascular disease or cardiac rehabilitation. Studies varied in how they assessed PCC and none fully conceptualized PCC according to an existing comprehensive PCC framework. Few studies identified facilitators or barriers of PCC, and no studies evaluated interventions to promote or support PCCW. Notably, many studies were excluded because they referred to a wide array of arbitrary topics as PCC or concluded that PCC was needed without having defined PCC. More research is needed to fully conceptualize and describe PCCW across different characteristics and conditions relevant to women, examine whether and how legislation and policies recognize and promote PCCW, and explore barriers and facilitators of PCCW. Policies, associated incentives, and tailored interventions may also be needed to stimulate awareness and delivery of PCCW.

Abbreviations

PCC Patient-centered care

PCCW Patient-centered care for women

Ethics Approval

Data were publicly available so institutional review board approval was not needed.

Data availability

All data are available in this manuscript.

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Disclosure

The authors report no conflicts of interest in this work.

Author Statement

ARG conceptualized the study, collected and analyzed data, drafted the article, and finalized the article by integrating feedback from co-authors. SD, AMF, SLG, CRG, NK, FAM, DES, SV and FCR assisted with conceptualizing the study and planning elements of study design. SD, AMF, SLG, CRG, NK, FAM, DES, SV and FCR assisted in reviewing and interpreting data, critically appraised the draft article for content and for accuracy and integrity, and reviewed and approved the final version.

PRISMA Flow Diagram. Legend: The PRIMSA diagram details our search and selection process.

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Supplemental file 1. Data extracted from included studies

Cardiac rehabilitation or cardiovascular disease

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Esmaeili 2016 Iran (25)	Qualitative interviews with 18 cardiac inpatients (10 women)	Explore patient views about patient-centred care	Patient-centred	Acknowledged the lack of a standard definition of patient-centred care, though noted it included treating patients with great respect, involving them in healthcare decision-making, and acknowledging their need	Patient views about components of patient-centred care: Managing patient's uncertainty Providing flexible care that addressed patient needs, expectations and preferences Empathizing with patients Making informed, shared/independent decisions about care Establishing therapeutic communication

Preventive Care

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Liang 2017 United States (26)	Analysis of survey data for 16,654 patients aged 65+ with at least one chronic condition collected from 2009-2013 (56% women, mean age 74.3)	Examine association between patient-centred care and receipt of preventive services: blood pressure, blood cholesterol, routine checkup, blood stool test, breast exam, mammography, Pap smear, exercise education, diet education	Patient-centred	Patient-centred care (PCC) assessed by 9 survey questions (based on Institute of Medicine definition of PCC): <u>Whole-person care</u> • Confidence in provider for new and minor health problems • Confidence in provider for preventive care • Confidence in provider for ongoing health problems • Confidence in provider for referrals to other health professionals <u>Patient engagement</u> • Asks about medication/treatment from other providers • Asks patient to be involved in decisions <u>Enhanced access to care</u> • No difficulty accessing provider by phone • Provider has evening/weekend hours	The PCC group was more likely than the non-PCC group to receive 8 types of preventive services The partial PCC group had a greater likelihood than the non-PCC group of receiving 7 types of preventive services

				• No difficulty accessing provider after hours	
Peters 2010 Australia (27)	Qualitative interviews with 15 women aged 30-65	Explore factors influencing decisions about routine Pap testing or mammography	Woman-centred	Factors identified by women and labelled as woman-centred by authors were: • Access to female physician • Holistic care; either due to time to discuss various issues or access to multidisciplinary team • Woman-only environment • Opportunity to ask questions and have testing explained	Factors that influenced routine screening: • Safe environment • Continuity of care • Woman-centred service
Lasser 2008 United States (28)	Qualitative observation of 7 primary care providers and 18 elderly patients (78% women, mean age 71.9)	Explore influence of patient-centred communication on agreeing to flu vaccine and colorectal cancer screening	Patient-centred	Patient-centred communication was described by the authors as: • Sharing of power and responsibility • Use of empathy • Treating patient like a person • Rapport and trust	Factors influencing preventive services were: • Primary care provider vaccination of the patient • Primary care provide introduces the discussion • Persistence of primary care provider • Primary care provider cultural competence • Patient-centred communication

Family planning

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Callegari 2017 United States (29)	Concept analysis (review of select literature)	To describe a patient-centred approach to reproductive life planning	Patient-centred	Authors described a patient-centred approach as providing education to patients that integrates evidence-based recommendations with patient preferences, recognizing that patients' individual values and preferences should be an integral factor in decisions made about their health care	Components of a patient-centred approach: • Asking open-ended questions that allow women to express ambivalent or mixed feelings about pregnancy • Working collaboratively with women to identify strategies that meet their needs in the setting of ambivalence • Recognizing that some women who do not have an active intention to pursue pregnancy may welcome unintended pregnancy

					• Recognizing that some women may not value planning, or may feel that planning is not attainable due to their life circumstances • Providing nonjudgmental counseling and support, which respects women's reproductive autonomy • Tailoring information delivery to women's preferences and needs, based on open conversations about reproductive goals
Morse 2017 United States (30)	Concept analysis (review of select literature)	To describe a patient-centred approach to family planning	Patient-centred	Authors describe a patient-centred approach as: • Putting women at the forefront to optimize reproductive choices • Understanding patients' cultural, ethnic, racial and social background • Non-coercive	Components of a patient-centred approach: • Establish continuity of care • Earn patient trust • Acknowledge different values around childbearing • Inquire about reproductive preferences • Ask about patient contraceptive preferences • Talk about proper use of contraceptive methods
Dehlendorf 2016 United States (31)	Analysis of survey data from 348 women (mean age 26.8 years) from 2009-2012	Assess whether quality of interpersonal care during contraceptive counseling is associated with contraceptive use	Patient-centred	Interpersonal Quality in Family Planning scale developed for this study was based on published quality measures reflecting patient-centered care and qualitative research on women's preferences for contraceptive counseling: • Respecting me as a person • Showing care and compassion • Letting me say what mattered about my birth control method • Giving me opportunity to ask questions • Taking my preferences about birth control seriously	• 41% were still using their chosen contraceptive methods at 6 months • Patients who reported high quality interpersonal care of family planning were more likely to maintain use of chosen contraceptive method (OR 1.8, 95% CI 1.1 to 3.0)

				• Considering my personal situation when advising about birth control • Working out a plan for birth control with me • Giving me enough information to make the best decision about my birth control method • Telling me how to take or use my birth control method most effectively • Telling me the risks and benefits of the birth control method I chose • Answering all my questions	
Pilgrim 2014 United States (32)	Analysis of survey data from 748 women (mean age 24) attending family planning clinics from 2008-2009	Examine quality of care and satisfaction with care in family planning programs	Patient-centred	Client-Clinician Centeredness Scale asks if the clinician: • Explained medical words • Encouraged me to ask questions • Gave me enough time to say what I thought was important • Listened carefully to what I had to say • Explained why tests were being done • Made me feel comfortable by talking about personal things • Was interested in me as a person	Satisfaction with care was associated with: • Convenient clinic hours • Clear check-in process • Clinical aids used during appointment • Higher scores on Client-Clinician Centeredness Scale
Yee 2011 United States (33)	Qualitative interviews with 30 postpartum women (mean age 26.6 years)	Explore views about postpartum contraception counseling content and communication	Patient-centred	Features of positive communication labelled by authors as patient-centred: • Answering questions • Frequent discussions • Providing written information • Feeling supported • Feeling connected to provider • Provider-initiated counseling • Being allowed to choose	Valued features of counseling were: • Communication that was personalized, comprehensive and delivered in an empathic manner • Multimodal teaching approach (both discussion and reading material) • Balance of not too much information with reminders

Depression

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Wang 2017 China (34)	Analysis of survey data from 291 patients (53.5% women, mean age 49.4) and 71 physicians	Examine preferences for patient-centred communication	Patient-centred	Patient-Practitioner Orientation Scale comprised of 18 items: • Caring subscale (9 items): physicians should care about the patient as a whole, and caring about emotions and good interpersonal relations are key to the medical encounter • Sharing subscale (9 items) – patients and physicians should share power and control, and physicians should share as much information as possible	Physicians scored higher in Caring (4.7 vs 4.08, p<0.05) Patients scored higher in Sharing (3.13 vs 2.94, p<0.05)
Finney Rutten 2016 United States (35)	Analysis of survey data from 3,630 adults (54.7% women, 55% age 18-49, 26.4% age 50-64, 18.5% 65+) from 2012-2013	To examine whether patient-centred communication is associated with self-efficacy by chronic illness burden	Patient-centred	Patient-centred communication questions based on Epstein & Street asked if providers: • Allowed you to ask all the health-related questions you had • Payed attention to feelings and emotions • Involved you in decisions as much as you wanted • Made sure you understood things you needed to do to take care of your health • Helped you deal with feelings of uncertainty about your health or health care	Health-related self-efficacy was lower among those with greater illness burden (11.06, p=0.0002) Those without depression/anxiety had higher health self-efficacy (4.34, p=0.01) Higher ratings of patient-centred communication were associated with health self-efficacy (0.26, p<0.0001), ans was greater among those with depression/anxiety (0.19, p<0.0001)
Rossum 2016 United States (36)	Survey of 792 patients (75.0% women) from 83 primary care clinics from 2007-2009	Examine link between patient-centred care and depression improvement	Patient-centred	Patient Assessment of Chronic Illness Care survey measured how patient-centred, proactive, planned, and collaborative patients found their care: • Treatment preferences • Concerns and questions • Clinicians considered your goals and values when recommending treatments	• At 6 months, 37% of 792 patients Ages 18–88 achieved depression remission, and 79% rated their care as good-to-excellent • Measures of patient-centredness associated with remission at 6 months: asked for ideas and preferences regarding treatment (p=0.04), asked about

				• Provided treatment plans you could do in your daily life • Asked about side effects of treatment • Encouraged to attend community programs • Told about changes to make in daily life that could help • Given written information • Referred to a nurse or other clinician who works with the physician to help you • Called by a health professional who works with your physician to follow-up on how treatment was working Depression severity was self-rated using the PHQ-9 and remission was defined as a score < 5.0 Depression care quality was assessed with: over the past month, how would you rate the quality of care you have received for depression at your primary care clinic (excellent to poor)?	concerns or questions (p=0.03), provided with treatment plans (p=0.04), asked to complete a depression screen (p=0.01) and asked about thoughts of suicide or self-harm (p=0.008) • Soliciting patient preferences for care and questions or concerns= (0.0001), providing treatment plans (p=0.0002), feeling that providers asked about values and preferences (p<0.0001), utilizing depression scales (p<0.0001) and asking about side effects (p<0.0001) positively associated with quality ratings
Jani 2012 Scotland (37)	Qualitative observation of 356 visits with 25 GPs in deprived areas (107 patients, 67.3% women) and 303 visits with 20 GPs in affluent areas (56 patients, 78.6% women)	Assess if depression care is patient-centred	Patient-centred care	Physician empathy assessed with the Consultation and Relational Empathy (CARE) questionnaire measure: • Making you feel at ease • Letting you tell your “story” • Really listening • Being interested in you as a whole person • Fully understanding your concerns • Showing care and compassion • Being positive • Explaining things clearly • Helping you to take control • Making a plan of action with you	• Mean consultation length was similar in deprived and affluent areas • Mean CARE measure was lower in deprived areas (p=0.003) compared with affluent areas • Mean global score of Measure of Patient Centred Communication was lower in deprived areas (p=0.004), as were the components of exploring disease and illness, and finding common ground

				Verbal communication assessed with the Measure of Patient-Centred Communication: • Exploring disease and illness experience • Understanding the whole person • Finding common ground Non-verbal communication assessed with Mehrabian's schemata for number of: • Smiles, and their duration • Positive facial expressions • Head nods • Supportive gesticulations • Gaze toward patient, and their duration • Use of computer and notes ,and their duration	GPs in deprived areas looked at patients for shorter times (p=002), had fewer head nods (p=001), and fewer positive facial expressions (p=0.013)
Chapman 2008 United States (38)	Qualitative observation of 88 consults with 6 female standardized patients to 46 general practitioners for discussions of depression	Assess link between patient-centred communication and physician personality	Patient-centred	Communication assessed with the Measure of Patient-Centred Communication (MPCC): • Exploring disease and illness experience • Understanding the whole person • Finding common ground Physician personality assessed with NEO Personality Inventory • Anxiety • Vulnerability • Tender mindedness • Dutifulness • Openness to feelings	Physicians who were more open to feelings engaged in greater communication about the patient's illness experience (MPCC component 1; p=0.05) Higher dutifulness was associated with higher scores on component 2 (whole person; p=.03) but lower scores on component 3 (finding common ground; p= 0.02) Greater anxiety or vulnerability was associated with lower component 3 (common ground) scores (p= 0.03)

PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	N/A
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	5
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	N/A
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	N/A
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	7
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	8
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	9
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	7
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	11
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	7
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	N/A
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	N/A
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	11

PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	N/A
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	N/A
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	12
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	12
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	N/A
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	N/A
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	N/A
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	N/A
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	N/A
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	16
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	18
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	17
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	20

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

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BMJ Open

How is patient-centred care addressed in women's health? A theoretical rapid review

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REVIEW
Theoretical review of patient-centered care for women
Gagliardi et al

How is patient-centred care addressed in women's health? A theoretical rapid review

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Abstract

Purpose:

Efforts are needed to reduce gendered inequities and improve health and well-being for women. Patient-centred care (PCC), an approach that informs and engages patients in their own health, is positively associated with improved care delivery, experiences and outcomes. This study aimed to describe how PCC for women (PCCW) has been conceptualized in research.

Methods:

We conducted a theoretical rapid review of PCCW in four health conditions. We searched MEDLINE, EMBASE, CINAHL, SCOPUS, Cochrane Library, and Joanna Briggs index for English-language articles published from January 2008 to February 2018 inclusive that investigated PCC and involved at least 50% women aged 18 or older. We analyzed findings using a 6-domain PCC framework, and reported findings with summary statistics and narrative descriptions.

Results:

After screening 2,872 unique search results, we reviewed 51 full-text articles, and included 14 (5 family planning, 3 preventive care, 4 depression, 1 cardiovascular disease or rehabilitation). Studies varied in how they assessed PCC. None examined all 6 PCC framework domains; least evaluated domains were addressing emotions, managing uncertainty, and enabling self-management. Seven studies that investigated PCC outcomes found a positive association with appropriate health service use, disease remission, health self-efficacy, and satisfaction with care. Differing views about PCC between patients and physicians, physician PCC attitudes, and geographic affluence influenced PCC. No studies evaluated the influence of patient characteristics or tested interventions to support PCCW.

Conclusion:

A paucity of research has explored or evaluated PCCW in the conditions of interest. We excluded many studies because they arbitrarily labelled many topics as PCC, or simply concluded that PCC was needed. More research is needed to fully conceptualize and describe PCCW across different characteristics and conditions, and to test interventions that improve PCCW. Policies and incentives may also be needed to stimulate greater awareness and delivery of PCCW.

Keywords:

equity, quality, outcomes, determinants, policies, interventions

Strengths and limitations of this study

- This may be the first synthesis to describe patient-centred care (PCC) specifically for women across multiple clinical areas
- We used rigorous methods for a theoretical, rapid review that complied with standards for the conduct of electronic search strategies and for reporting of methods and findings
- We employed an established patient-centred care (PCC) framework to analyze included studies, thereby identifying limitations in how PCC has been explored or measured
- The methodologic approach and interpretation of findings were guided by a multidisciplinary research team comprised of health services researchers, physicians, experts in women's health, and consumer representatives
- Few studies were included because our search may not have identified all relevant studies and our eligibility criteria may have been overly stringent

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Introduction

Patient-centered care (PCC) refers to engaging patients (and families or care partners) in their own individual health care and also to engage patients (or communities) in health care service co-design so that all patients benefit from PCC.[1] At the individual level, PCC improves patient knowledge, relationship with providers, service experience and satisfaction, treatment compliance, appropriate health care use, health outcomes, and cost-effectiveness of service delivery.[2-4] However, many patients do not receive or experience PCC.[5] Improving PCC requires a thorough understanding of what comprises PCC to serve as the basis for measurement, and the design and implementation of strategies to promote and support PCC. Currently, few instruments are available to specifically measure PCC, and they each measure different dimensions of care delivery and the care experience.[6] Furthermore, some instruments were developed largely by health care professionals, and may not capture patients' views about what constitutes PCC.[7] Clearly, more research is needed to better conceptualize, measure, and improve PCC for individual patients.

PCC is not a new concept yet there is currently no standard definition, and the term PCC is used synonymously with other concepts, including quality of care, a much broader concept of which PCC is a component.[8] PCC frameworks emphasize that it is an approach to care based on patient-provider interaction,[9] and literature reviews and stakeholder consensus concur. Indeed, several initiatives employed rigorous processes to characterize PCC. A systematic review of the literature for PCC definitions followed by a Delphi survey involving an international panel of stakeholders including patients generated consensus on the most important dimensions of PCC: patient as unique person, patient involvement in care, patient information, patient-clinician communication, and patient empowerment.[10,11] A scoping review of 19 studies published from 1994 to 2011 identified 25 unique frameworks or models of PCC.[12] The frameworks and models differed by number and type of domains, but included one or more elements within common domains pertaining to the patient-provider relationship (sharing information, empathy, empowerment), partnership (sensitivity to needs, relationship-building), and health promotion (collaboration, case management, resource use). McCormack et al established a comprehensive PCC framework based on systematically reviewing literature and relevant theories, observing 38 medical encounters between cancer patients and oncologists, interviewing those 38 patients, and then reviewing the proposed domains with a 13-member expert panel to refine the framework.[13] The resulting PCC framework included 31 sub-domains within six interdependent domains: fostering clinician-patient relationships, exchanging information, recognizing and responding to patient emotions, managing uncertainty, making decisions, and enabling patient self-management.

In 1995, the Fourth World Conference on Women of the United Nations revealed the need to deliver services that are sensitive to the needs and preferences of women,[14] and in 2009 the World Health Organization report, “Women and Health”, emphasized the need to improve the quality of women's health care services.[15] For example, over-medicalization of female-specific conditions such as menopause has led to creation and overtreatment of new “diseases”, and confusion and anxiety among women about the best options for maximizing their health.[16] For other conditions common to men and women such as cardiovascular disease, research suggests that there is inequitable access to evidence-based health services; women are less often referred for diagnostic and therapeutic interventions and, once referred, are treated less effectively than men.[17] Monitoring by the United Nations continues to show that gender-imposed disparities influence women’s health; as a result, ensuring healthy lives and promoting well-being for women remains one of 17 goals in the “Gender Equality in the 2030 Agenda for Sustainable Development” issued in 2018.[18] PCC for women (PCCW) stands to improve women’s health care experiences and associated outcomes. Given lack of consensus on what constitutes PCC, we similarly lack an understanding of PCCW, and how that differs among women with different health conditions or characteristics. The purpose of this study was to review published research on whether and how PCC was conceptualized or measured in research involving women including determinants and outcomes of PCCW. That knowledge could be used in the future as the basis for ongoing research, and for health care planning, evaluation and quality improvement.

Methods

Approach

There are many types of research syntheses employing varying methods to address different types of research questions. As part of a larger study of how to support PCCW, our primary goal was to describe how PCCW has been conceptualized; in future research, we will elaborate the PCCW concept by interviewing patients and clinicians. Hence, we chose a theoretical review as the methodological approach.[19] A theoretical review is characterized by a comprehensive search strategy, inclusion of conceptual and empirical primary sources, explicit study selection, no quality appraisal, and content analysis of included items. It aims to generate insight on key theoretical constructs, either by transforming existing theoretical and empirical evidence into a higher-order conceptual framework, or mapping constructs studied to an existing framework as was done in this study. To quickly describe PCCW so that it could be refined in subsequent components of the larger study, we also adopted a rapid review approach. A rapid review is characterized by restriction to a single language (English), a short time frame (last ten years, 2008+), exclusion of grey literature, one person performs screening and data abstraction (ARG), quality of included studies is not appraised, and authors of included studies are not contacted.[20,21] As there are no reporting criteria specific to theoretical or rapid reviews, we employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses criteria to guide reporting of the methods and findings.[22] Data were publicly available so institutional review board approval was not needed. We did not register a protocol for this review.

Planning

To become familiar with the literature, we conducted a preliminary search of MEDLINE. The search employed a broad lens to capture all studies of health care quality for or among women that may not necessarily having referred to PCC. . Using the Medical Subject Headings (MeSH) “patient-centered care” AND [wom#n or female], the search generated nearly 31,000 results published from 2008 to February 9, 2018 on a diffuse range of topics not necessarily related to PCC, which would have required considerable screening time and effort. Instead, we were interested in a more focused review to assess whether and how others have specifically studied PCC, possibly identifying gaps in knowledge that our future research could address. Therefore, we opted for a more targeted strategy, and subsequently searched for only studies in which the focus was explicitly labelled as PCC.

Eligibility criteria

Knowledge gained from the preliminary search was used to generate eligibility criteria for the planned review based on the PICO (participants, intervention, comparisons, outcomes) framework. The PICO framework is commonly used in systematic reviews to optimize searching and screening. Participants referred to adult women (age 18+) with specific health care concerns or conditions in need of improvement. These conditions were chosen based on the proceedings of the Fourth World Conference on Women,[14] and on recommendations by collaborators of our larger research study (who included health services researchers, clinician investigators, and representatives of professional societies, disease-specific foundations, quality improvement and monitoring agencies, patient advocacy groups, patients and consumers) because they are prevalent health concerns for women, or common to both men and women but requiring improved equity or quality of care for women, and represent the full lifespan: family planning, preventive care, depression, and cardiovascular disease or cardiac rehabilitation. Note that, with insight from this, we more comprehensively examined PCCW for other conditions; that work will be published elsewhere. Participants also included physicians or nurses in any setting of care (primary, secondary, tertiary) who cared for women with these conditions. Interventions explicitly referred to PCC, or a synonymous term such as person-, women-, client-, or family-centred care, or approaches or strategies to promote or support PCC. For the purpose of screening, PCC was defined based on constructs common to multiple definitions,[8-12] and viewed as compassionate, respectful care that addresses patient values and preferences, as well as information and supportive care needs, thus requiring patient-level engagement and patient-provider interaction. To reflect this, we adopted McCormack et al.'s conceptualization of PCC in six domains: fostering patient-clinician relationship, exchanging information, recognizing and responding to patient emotions, managing uncertainty, making decisions, and enabling patient self-management.[13] As a theoretical review, the primary objective was to describe and compare how PCC was conceptualized and measured across studies and in comparison with the McCormack framework.[13] Hence, with respect to comparisons, a broad array of study designs were included. Studies were deemed eligible if they explored patient or clinician views about what constitutes PCCW or how to improve PCCW, identified determinants of PCCW including enablers or barriers, or evaluated the impact of strategies designed to promote or support PCCW (by comparing patients or clinicians with and without exposure to PCCW strategies, or before or after exposure to strategies, or receiving different types of strategies). Outcomes included but were not limited to awareness, understanding, experiences or impacts of PCCW, or determinants or factors influencing any of these functions, or the impact of strategies implemented to support or improve PCCW. Regarding publication type, eligible study designs included English language qualitative (interviews, focus groups, qualitative case studies), quantitative (questionnaires, randomized controlled trials, time series, before/after studies, prospective or retrospective cohort studies, case control studies) or mixed methods studies. Although systematic reviews were not eligible (to avoid duplication of studies included in reviews and by our search), if deemed relevant, we screened their references to identify additional eligible primary studies.

Searching

We developed our search strategy in conjunction with a medical librarian and complied with the Peer Review of Electronic Search Strategy reporting guidelines (Table 1).[23] We searched MEDLINE, EMBASE, CINAHL, and SCOPUS on February 26, 2018 from 2008 to that date. We also searched the Cochrane Library and the Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports for relevant systematic reviews to screen references. We searched for studies that explicitly used the term “patient-centered”, or an alternative spelling or synonymous option. We supplemented that keyword search with MeSH terms reflecting the concept of PCC to identify studies that employed a synonymous term for PCC that we had not considered, then combined those searches with terms for women.

Table 1 MEDLINE search strategy

1 women's health/ (25422)
2 women/ (14247)
3 female/ (7835541)
4 1 or 2 or 3 (7839777)
5 patient satisfaction/ (71947)
6 personal satisfaction/ (15404)
7 Patient Preference/ (5969)
8 Patient-Centered Care/ (15651)
9 (patient centered or patient-centered or patient centred or patient-centred).mp. (27001)
10 (person centered or person-centered or person centred or person-centred).mp. (3883)
11 (wom#n centered or wom#n-centered or wom#n centred or wom#n-centred).mp. (450)
12 professional-patient relations/ (24731)
13 Health Communication/ (1437)
14 Health Equity/ (367)
15 Health Services Accessibility/ (63814)
16 Patient Participation/ (22042)
17 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 (220827)
18 4 and 17 (110430)
19 limit 18 to (english language and yr="2008 -Current" and "all adult (19 plus years)") (50343)
20 limit 19 to (comment or editorial or interview or lectures or letter or news) (493)
21 19 not 20 (49850)
22 8 or 9 or 10 or 11 (30272)
23 4 and 22 (8723)
24 limit 23 to (english language and yr="2008 -Current" and "all adult (19 plus years)") (5055)
25 limit 24 to (comment or editorial or interview or lectures or letter or news) (26)
26 24 not 25 (5029)
27 depression/ (99502)
28 26 and 27 (161)
29 cardiac rehabilitation/ (1535)
30 Cardiovascular Diseases/ (128523)

31 26 and 29 (4)
32 26 and 30 (60)
33 family planning services/ or reproductive health services/ (25063)
34 26 and 33 (28)
35 Preventive Health Services/ (12323)
36 Health Promotion/ (65178)
37 Healthy Lifestyle/ (499)
38 35 or 36 or 37 (76434)
39 26 and 38 (116)

Screening

ARG screened titles and abstracts of search results according to the PICO-based eligibility criteria specified above, and generated criteria for ineligible studies prospectively with screening. Studies were not eligible if the participants were: family members, care givers or care partners, allied health care professionals (ie. pharmacists, dentists) or trainees; or patients or clinicians in long-term care, residential or end-of-life care settings; or where women comprised less than 50% of participants, or the number of women were not stated. Studies were not eligible if they involved patients in organizational planning, evaluation or improvement, or when involvement in co-design was said to have generated a patient-centred service/intervention because patient engagement in service planning or improvement was beyond the scope of this study, which focused on patient engagement in their own individual care; mentioned but did not define or describe what was meant by PCC; or did not study PCC but concluded their research contributes to an understanding of how to deliver or achieve PCC, or shows that PCC is needed. Many studies that arbitrarily referred to PCC in the study of any program, service, treatment or management of a patient were not eligible. This included studies that focused on the illness experience or clinical treatment preferences or satisfaction with treatment/services, or health-related quality of life and not the care experience; explored enablers or barriers of the use of health care services only; focused on collaborative or integrated or coordinated or multidisciplinary or interdisciplinary care; patient-centered medical home; motivational interviewing or counselling of patients; concerned interventions delivered by peers or lay persons; patient preferences for clinical outcomes (patient-reported outcomes); and web-based, computer-based or smart phone-based electronic applications for patients. Articles that singly focused information needs, decision-making, self-management, therapeutic alliance, or empathy were also excluded because they examined only one aspect, and not the multiple domains that comprise PCC.[13] Studies were not eligible if they were protocols, editorials, commentaries, letters, news items, meeting abstracts or proceedings; or conceptual or empirical studies published in a language other than English.

Data extraction

From each study ARG extracted and tabulated data on study characteristics including author, publication year, country, study objective, research design, participants, term used to refer to PCC, definition or description of PCC, and findings. If an intervention was employed, ARG also extracted data on content (information/knowledge conveyed), format (mode of delivery, single or multi-faceted), timing (duration, frequency), participants (number, type, setting) and personnel who delivered the intervention according to the Workgroup for Intervention Development and Evaluation Research reporting standards for behavioural interventions.[24]

Data analysis

We used summary statistics to report the number of studies published per year, and by condition, country, study design, and term used for PCC. We compared definitions or descriptions of PCC across studies and conditions. Study quality, while not formally assessed, was evaluated by describing how PCC was conceptualized and measured, We analyzed definitions or descriptions of PCC employed in studies with McCormack's six-domain PCC framework.[13] This means that PCC definitions, descriptions or measures extracted from included studies were mapped to McCormack's PCC domains. To identify gaps or limitations in the way PCCW was studied, we summarized the number of domains addressed in each included study. Instruments used to measure PCC were specified, and we noted if they were validated measures. We described the impact and determinants of PCC narratively, and the number of studies that evaluated interventions designed to promote, support or improve PCC. Team members, which included health services researchers, physicians of various specialties and experts in women's health, independently reviewed data and the draft manuscript, and provided feedback that shaped the interpretation of results and conclusions.

Patient and Public Involvement

This study was informed by a research team that included researchers, collaborators, and two consumer representatives. All team members took part in a planning teleconference during which the review objective and eligibility criteria were established.

Results

Search results

We identified a total of 2,872 unique citations, and excluded 2,821 upon screening of titles and abstracts. Among the remaining 51 full-text articles considered, we excluded 36 because conditions were not relevant (n=10), PCC was not defined (n=7), study participants were less than 50% women or the study was not specific to PCCW (n=3), or the study focused on treatment preferences (n=3), clinical services (n=3), e-applications (n=2), the illness experience (n=2), self-management (n=2), involvement of patients in service co-design rather than their own care (n=1), or decision-making, which is relevant but not a comprehensive assessment of PCC (n=1). We excluded two additional studies due to publication type (n=1) and because participants were trainee physicians (n=1). Ultimately, we included 14 studies for review (Figure 1). Data extracted from eligible studies are available in supplemental file 1.[25-38]

Study characteristics

Studies were published from 2008 to 2017. Most employed the term “patient-centred care” (n=13); 1 study referred to “woman-centred care”. Most studies were conducted in the United States (n=10) followed by one each in Australia, China, Iran, and Scotland. By condition, studies included 1 on cardiovascular disease, 3 on preventive care, 5 on family planning, and 5 on depression. With respect to study design, the largest number of studies were statistical analyses of survey data to examine the association of PCC with receipt of treatment or outcomes (n=6). Other studies involved qualitative interviews with women to describe PCCW (n=3) or qualitative observation of patients and clinicians to assess if PCCW occurred during consultations (n=3). Two studies were concept analyses to describe an approach for delivering PCCW. Seven (50.0%) studies focused solely on women: 1 on preventive care, 5 on family planning, and 1 on depression; the remaining 7 studies were included because they involved at least 50% women: 1 on cardiovascular disease, 2 on preventive care, and 4 on depression.

PCCW definition

Table 2 summarizes the definition or domains of PCC employed or measured, or the definition or domains of PCCW generated by each study. No study addressed all 6 PCC domains, although 4 studies addressed 5 domains and 6 studies addressed 4 domains. The domains most frequently addressed by the 14 studies were exchanging information (n=13), making decisions (n=12), and fostering the relationship (n=11). Domains addressed less frequently by the 14 studies were addressing emotions (n=7), managing uncertainty (n=7), and enabling self-management (n=5). One study that explored factors influencing decisions about routine Papanicolaou testing or mammography also found that women desired access to a female physician and a woman-only environment. There was no difference in number of PCC domains addressed across conditions; the mean and median number of PCC domains were 3.3 and 3.0, respectively, for each of preventive care, family planning, and depression. There did not appear to be patterns of PCC domains addressed by condition.

Table 2 PCC definitions, descriptions or components measured in included studies

Study Condition	Fostering the relationship	Exchanging information	Addressing emotions	Managing uncertainty	Making decisions	Enabling self-management	Domains per study (n)
	• Discuss roles and responsibilities • Honesty and openness • Trust in clinician competence • Express caring • Build rapport	• Explore needs and preferences • Share information • Provide information resources • Assess and facilitate understanding	• Explore and identify emotions • Assess anxiety or depression • Validate emotions • Express empathy or reassurance • Provide help to deal with emotions	• Define uncertainty • Assess uncertainty (cognitive) • Use emotion-focused management strategies (affective) • Use problem-focused management strategies (behavioural)	• Communicate about decision needs, support and process • Prepare for deliberation and decision • Make and implement a choice and action plan • Assess decision quality and reflect on choice	• Learn and assess • Share and advise • Prioritize and plan • Prepare, implement and assist • Arrange and follow-up	
Liang 2017 (26) preventive	X	X			X	X	[illegible]
Callegari 2017 (29) family planning		X	X	X	X		4
Morse 2017 (30) family planning	X	X			X		3
Wang 2017 (34) depression	X	X	X		X		4
Esmaeili 2016 (25) cardiac	X	X	X	X	X		5
Dehlendorf 2016 (31) family planning	X	X		X	X	X	5
Finney Rutten 2016 (35) depression		X	X	X	X		4
Rossum 2016 (36) depression		X		X	X	X	4
Pilgrim 2014 (32) family planning	X	X		X	X		4
Jani 2012 (37) depression	X	X	X		X	X	5
Yee 2011 (33) family planning	X	X	X	X	X		5
Peters 2010 (27)	X	X				X	3

preventive							
Chapman 2008 (38) depression	x	x					2
Lasser 2008 (28) preventive	x		x		x		3
Studies including domains (n)	11	13	7	7	12	5	

PCCW measurement

Seven (50.0%) studies employed existing, validated instruments to measure PCC. They included the Interpersonal Quality in Family Planning Scale,[31] Client-Clinician Centeredness Scale,[32] Patient-Practitioner Orientation Scale,[34] Patient Assessment of Chronic Illness Care Survey,[36] Consultation and Relational Empathy Questionnaire,[37] and Measure of Patient-Centred Communication.[37,38]

Impact of PCCW

Seven (50.0%) studies examined PCCW outcomes. Two qualitative studies explored aspects of PCC that influenced receipt of preventive services including routine Papanicolaou testing or mammography,[27] and flu vaccine or colorectal cancer screening,[28] and one survey study found that PCC increased receipt of preventive services monitoring of blood pressure or cholesterol, routine check-up, blood stool test, breast exam, mammography, Papanicolaou testing, as well as exercise and diet education.[26] Two survey studies of family planning found that PCC improved sustained use of chosen contraceptive method six months later,[31] and satisfaction with care in family planning programs.[32] Among patients with depression, studies showed that PCC was positively associated with health self-efficacy for dealing with feelings of uncertainty about health or health care,[35] and remission of depression at six months and rating of care quality.[36]

PCCW determinants

Three studies, all based on depression care, examined challenges or barriers of PCC. A survey study found that patients and physicians differed in their preferences for patient-centred communication.[34] A study involving observation of consultations showed that PCC was less likely in less affluent areas compared with those more affluent.[37] That study also examined physician behaviour; physicians in deprived areas looked at patients fewer times, and used fewer head nods and fewer positive facial expressions. Another study involving observation of consultations found that physician attributes influenced PCC: higher dutifulness was positively associated with treating patients as whole persons and finding common ground while those exhibiting anxiety or vulnerability scored lower for finding common ground.[38] No studies examined whether or how women's characteristics influenced preferences for or receipt of PCC.

Strategies to support PCCW

None of the 14 included studies developed, implemented or evaluated the impact of an intervention to promote or support PCCW.

Discussion

This theoretical rapid review identified a paucity of research on PCCW across four conditions. Moreover, none of the studies addressed all 6 domains of the comprehensive McCormack et al PCC framework, [13] with half of the studies or fewer evaluating the domains of addressing emotions, managing uncertainty, and enabling self-management. Each study defined, described or measured PCC differently, and half of the studies employed an existing validated instrument (scale or questionnaire) to assess PCC. Three studies examined barriers to PCC, which were differences between patients and physicians about the importance of PCC domains, physician personality characteristics, and receiving care in less affluent areas. No studies examined whether or how women's characteristics influenced preferences for or receipt of PCC, though one study found that geographic affluence influenced PCC. Of the 7 (50.0%) studies that examined the impact of PCC, all found that PCC was positively associated with uptake of preventive care tests or education, health self-efficacy, satisfaction with care, contraception use, and remission of depression. No studies examined interventions to promote or support PCCW. Hence, although study quality was not directly assessed, by describing how PCC was conceptualized and measured, we identified numerous limitations of research on PCCW. Given the paucity of research on PCCW, it was not possible to generate theoretical or conceptual insight on whether or how PCC elements, determinants or interventions influence outcomes.

The 1995 United Nations Fourth World Conference on Women, considered a springboard to gender equality by setting a 12-point agenda for the advancement of women, was adopted by 189 countries.[14] One of the 12 points was women and health, which referred to improving quality of care, strengthening preventive programs, and addressing gender-sensitive issues such as family planning. Hence, it is surprising that little research on the conditions we examined specifically studied PCCW. A few factors might contribute to the paucity of research on PCCW. One reason may be lack of clarity and agreement on what constitutes PCC.[8] Notably, we excluded a large number of studies because they arbitrarily used PCC to refer to a wide variety of health care issues, or failed to define PCC, or employ or generate a comprehensive PCC framework. Another reason may be a lack of policy or system guidance and incentives for PCCW. For example, Wiig et al. found that health policy in 10 European countries did not specify mechanisms to improve healthcare quality.[39] Gauld et al. found that primary care policies in 7 countries only recently identified quality and safety as important platforms.[40] The more recent "Gender Equality in the 2030 Agenda for Sustainable Development", released in 2018, confirms the need for efforts to improve health and health care for women.[18] To achieve this, among other action items, the report recommends integrated policies and associated incentives to achieve goals. Future research should examine whether and how legislation and policies recognize and promote PCCW, and how those laws and policies are interpreted and implemented. This may reveal the approaches and interventions needed to create greater awareness and delivery of PCCW.

Another key finding was that each study defined and measured PCC differently, and none described or measured it as comprehensively as the McCormack framework.[13] Given that few studies were eligible, it is unclear if observed variations in conceptualizing or operationalizing PCC mean that PCCW differs for different conditions. Research by others that explored the perspectives of men and women with different conditions appear to also have generated different domains or dimensions of PCC.[41-43] Moreover, patients' PCC needs may vary depending on whether the aim is to understand their condition, decide on treatment, or plan self-management,[44] and may also vary along their illness trajectory or according to demographic or cultural characteristics.[45] Due to the paucity of eligible research, it was not possible to generate theoretical or conceptual insight on PCCW. Future research could employ similar methods for reviewing literature on PCCW for other conditions, and along with our ongoing research involving interviews with women who vary by condition and characteristics, may generate further insight and advance our understanding of how to optimize PCCW. Other researchers have noted that available instruments purported to evaluate PCC each measure different dimensions of care delivery and the care experience, and called for more instruments to be developed.[5] The findings of our study suggest that, first, more research is needed to fully define and describe PCCW to understand commonalities and where important condition- or characteristic-specific differences lie.

This review, and previous research found that PCC is associated with improved care delivery and outcomes.[2-4] However, few studies specifically examined facilitators or barriers of PCC, and no studies evaluated interventions to promote or support PCCW. A Cochrane systematic review by Baker et al. found that interventions that had been selected and tailored to address identified barriers of guideline-adherent clinical care were more likely to improve professional practice compared with either no intervention or simple dissemination of guidelines.[46] Therefore, in addition to research already suggested, more study is needed of the determinants of PCCW, as this knowledge is needed to select and tailor interventions that would improve PCCW and associated outcomes.

This review features strengths and limitations. We employed a review approach most suitable to our research objective, and searched the most relevant databases of medical literature with a search strategy that complied with standards, [23] and we compared PCCW across four conditions, two specific to women, and two common to men and women. A few issues may limit the interpretation and use of these findings. Given the rapid review approach involving a single screener and no review of grey literature, we may not have identified all relevant studies. While our search strategy was comprehensive, it may have omitted potentially relevant terms. Our exclusion criteria may have been overly stringent and eliminated potentially relevant studies that may have examined topics relevant to PCC; however, our intent was to examine whether PCC as a multi-domain concept had been thoroughly evaluated to inform future research. While perhaps not ideal, to achieve even a small volume of eligible studies, we included studies that involved both men and women provided that results described differences between men and women. Only half of the included studies involved women-only, which emphasizes the paucity of research on PCCW and represents an important finding. Due to the small number of included studies, and with only half of included studies solely focused on women, future research is necessary to establish a more definitive PCCW framework for women with different characteristics or conditions. Still, this may be the first study to examine whether and how PCCW has been investigated, and it raises a number of implications and issues that warrant ongoing research.

Conclusion

International policy and advocacy efforts have emphasized the need to improve the quality and experience of care for women with different health care issues across the lifespan. PCC, an approach that informs and engages patients in their own health care that is positively associated with improved health care experiences and outcomes, is also an international priority. Yet this review identified few studies that explored or evaluated PCCW concerning family planning, preventive health care services, depression, and cardiovascular disease or cardiac rehabilitation. Studies varied in how they assessed PCC and none fully conceptualized PCC according to an existing comprehensive PCC framework. Few studies identified facilitators or barriers of PCC, and no studies evaluated interventions to promote or support PCCW. Notably, many studies were excluded because they referred to a wide array of arbitrary topics as PCC or concluded that PCC was needed without having defined PCC. More research is needed to fully conceptualize and describe PCCW across different characteristics and conditions relevant to women, examine whether and how legislation and policies recognize and promote PCCW, and explore barriers and facilitators of PCCW. Policies, associated incentives, and tailored interventions may also be needed to stimulate awareness and delivery of PCCW.

Abbreviations

PCC Patient-centered care

PCCW Patient-centered care for women

Ethics Approval

Data were publicly available so institutional review board approval was not needed.

Data availability

All data are available in this manuscript.

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Disclosure

The authors report no conflicts of interest in this work.

Author Statement

ARG conceptualized the study, collected and analyzed data, drafted the article, and finalized the article by integrating feedback from co-authors. SD, AMF, SLG, CRG, NK, FAM, DES, SV and FCR assisted with conceptualizing the study and planning elements of study design. SD, AMF, SLG, CRG, NK, FAM, DES, SV and FCR assisted in reviewing and interpreting data, critically appraised the draft article for content and for accuracy and integrity, and reviewed and approved the final version.

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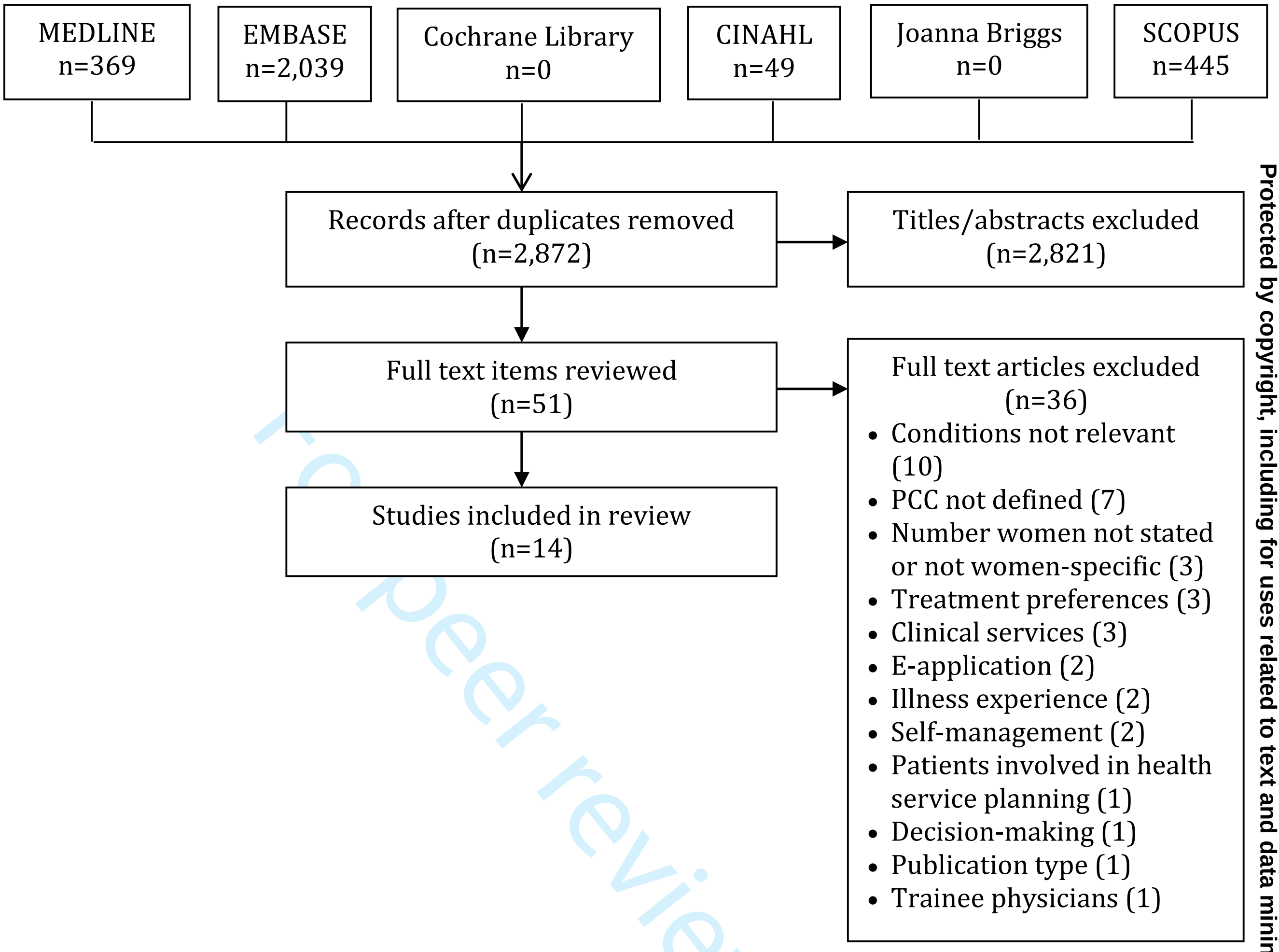
Figure Legend

Figure 1. PRISMA Flow Diagram.


MEDLINE
n=369
EMBASE
n=2,039
Cochrane Library
n=0
CINAHL
n=49
Joanna Briggs
n=0
SCOPUS
n=445
Records after duplicates removed
(n=2,872)
Titles/abstracts excluded
(n=2,821)
Full text items reviewed
(n=51)
Full text articles excluded
(n=36)
Conditions not relevant (10)
PCC not defined (7)
Number women not stated or not women-specific (3)
Treatment preferences (3)
Clinical services (3)
E-application (2)
Illness experience (2)
Self-management (2)
Patients involved in health service planning (1)
Decision-making (1)
Publication type (1)
Trainee physicians (1)
Studies included in review
(n=14)

Supplemental file 1. Data extracted from included studies

Cardiac rehabilitation or cardiovascular disease

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Esmaeili 2016 Iran (25)	Qualitative interviews with 18 cardiac inpatients (10 women)	Explore patient views about patient-centred care	Patient-centred	Acknowledged the lack of a standard definition of patient-centred care, though noted it included treating patients with great respect, involving them in healthcare decision-making, and acknowledging their need	Patient views about components of patient-centred care: Managing patient's uncertainty Providing flexible care that addressed patient needs, expectations and preferences Empathizing with patients Making informed, shared/independent decisions about care Establishing therapeutic communication

Preventive Care

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Liang 2017 United States (26)	Analysis of survey data for 16,654 patients aged 65+ with at least one chronic condition collected from 2009-2013 (56% women, mean age 74.3)	Examine association between patient-centred care and receipt of preventive services: blood pressure, blood cholesterol, routine checkup, blood stool test, breast exam, mammography, Pap smear, exercise education, diet education	Patient-centred	Patient-centred care (PCC) assessed by 9 survey questions (based on Institute of Medicine definition of PCC): <u>Whole-person care</u> • Confidence in provider for new and minor health problems • Confidence in provider for preventive care • Confidence in provider for ongoing health problems • Confidence in provider for referrals to other health professionals <u>Patient engagement</u> • Asks about medication/treatment from other providers • Asks patient to be involved in decisions <u>Enhanced access to care</u> • No difficulty accessing provider by phone • Provider has evening/weekend hours	The PCC group was more likely than the non-PCC group to receive 8 types of preventive services The partial PCC group had a greater likelihood than the non-PCC group of receiving 7 types of preventive services

				• No difficulty accessing provider after hours	
Peters 2010 Australia (27)	Qualitative interviews with 15 women aged 30-65	Explore factors influencing decisions about routine Pap testing or mammography	Woman-centred	Factors identified by women and labelled as woman-centred by authors were: • Access to female physician • Holistic care; either due to time to discuss various issues or access to multidisciplinary team • Woman-only environment • Opportunity to ask questions and have testing explained	Factors that influenced routine screening: • Safe environment • Continuity of care • Woman-centred service
Lasser 2008 United States (28)	Qualitative observation of 7 primary care providers and 18 elderly patients (78% women, mean age 71.9)	Explore influence of patient-centred communication on agreeing to flu vaccine and colorectal cancer screening	Patient-centred	Patient-centred communication was described by the authors as: • Sharing of power and responsibility • Use of empathy • Treating patient like a person • Rapport and trust	Factors influencing preventive services were: • Primary care provider vaccination of the patient • Primary care provide introduces the discussion • Persistence of primary care provider • Primary care provider cultural competence • Patient-centred communication

Family planning

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Callegari 2017 United States (29)	Concept analysis (review of select literature)	To describe a patient-centred approach to reproductive life planning	Patient-centred	Authors described a patient-centred approach as providing education to patients that integrates evidence-based recommendations with patient preferences, recognizing that patients' individual values and preferences should be an integral factor in decisions made about their health care	Components of a patient-centred approach: • Asking open-ended questions that allow women to express ambivalent or mixed feelings about pregnancy • Working collaboratively with women to identify strategies that meet their needs in the setting of ambivalence • Recognizing that some women who do not have an active intention to pursue pregnancy may welcome unintended pregnancy

					• Recognizing that some women may not value planning, or may feel that planning is not attainable due to their life circumstances • Providing nonjudgmental counseling and support, which respects women's reproductive autonomy • Tailoring information delivery to women's preferences and needs, based on open conversations about reproductive goals
Morse 2017 United States (30)	Concept analysis (review of select literature)	To describe a patient-centred approach to family planning	Patient-centred	Authors describe a patient-centred approach as: • Putting women at the forefront to optimize reproductive choices • Understanding patients' cultural, ethnic, racial and social background • Non-coercive	Components of a patient-centred approach: • Establish continuity of care • Earn patient trust • Acknowledge different values around childbearing • Inquire about reproductive preferences • Ask about patient contraceptive preferences • Talk about proper use of contraceptive methods
Dehlendorf 2016 United States (31)	Analysis of survey data from 348 women (mean age 26.8 years) from 2009-2012	Assess whether quality of interpersonal care during contraceptive counseling is associated with contraceptive use	Patient-centred	Interpersonal Quality in Family Planning scale developed for this study was based on published quality measures reflecting patient-centered care and qualitative research on women's preferences for contraceptive counseling: • Respecting me as a person • Showing care and compassion • Letting me say what mattered about my birth control method • Giving me opportunity to ask questions • Taking my preferences about birth control seriously	• 41% were still using their chosen contraceptive methods at 6 months • Patients who reported high quality interpersonal care of family planning were more likely to maintain use of chosen contraceptive method (OR 1.8, 95% CI 1.1 to 3.0)

				• Considering my personal situation when advising about birth control • Working out a plan for birth control with me • Giving me enough information to make the best decision about my birth control method • Telling me how to take or use my birth control method most effectively • Telling me the risks and benefits of the birth control method I chose • Answering all my questions	
Pilgrim 2014 United States (32)	Analysis of survey data from 748 women (mean age 24) attending family planning clinics from 2008-2009	Examine quality of care and satisfaction with care in family planning programs	Patient-centred	Client-Clinician Centeredness Scale asks if the clinician: • Explained medical words • Encouraged me to ask questions • Gave me enough time to say what I thought was important • Listened carefully to what I had to say • Explained why tests were being done • Made me feel comfortable by talking about personal things • Was interested in me as a person	Satisfaction with care was associated with: • Convenient clinic hours • Clear check-in process • Clinical aids used during appointment • Higher scores on Client-Clinician Centeredness Scale
Yee 2011 United States (33)	Qualitative interviews with 30 postpartum women (mean age 26.6 years)	Explore views about postpartum contraception counseling content and communication	Patient-centred	Features of positive communication labelled by authors as patient-centred: • Answering questions • Frequent discussions • Providing written information • Feeling supported • Feeling connected to provider • Provider-initiated counseling • Being allowed to choose	Valued features of counseling were: • Communication that was personalized, comprehensive and delivered in an empathic manner • Multimodal teaching approach (both discussion and reading material) • Balance of not too much information with reminders

Depression

Study	Research design	Objective	PCC term	PCC definition or measurement	Findings
Wang 2017 China (34)	Analysis of survey data from 291 patients (53.5% women, mean age 49.4) and 71 physicians	Examine preferences for patient-centred communication	Patient-centred	Patient-Practitioner Orientation Scale comprised of 18 items: • Caring subscale (9 items): physicians should care about the patient as a whole, and caring about emotions and good interpersonal relations are key to the medical encounter • Sharing subscale (9 items) – patients and physicians should share power and control, and physicians should share as much information as possible	Physicians scored higher in Caring (4.7 vs 4.08, p<0.05) Patients scored higher in Sharing (3.13 vs 2.94, p<0.05)
Finney Rutten 2016 United States (35)	Analysis of survey data from 3,630 adults (54.7% women, 55% age 18-49, 26.4% age 50-64, 18.5% 65+) from 2012-2013	To examine whether patient-centred communication is associated with self-efficacy by chronic illness burden	Patient-centred	Patient-centred communication questions based on Epstein & Street asked if providers: • Allowed you to ask all the health-related questions you had • Payed attention to feelings and emotions • Involved you in decisions as much as you wanted • Made sure you understood things you needed to do to take care of your health • Helped you deal with feelings of uncertainty about your health or health care	Health-related self-efficacy was lower among those with greater illness burden (11.06, p=0.0002) Those without depression/anxiety had higher health self-efficacy (4.34, p=0.01) Higher ratings of patient-centred communication were associated with health self-efficacy (0.26, p<0.0001), ans was greater among those with depression/anxiety (0.19, p<0.0001)
Rossum 2016 United States (36)	Survey of 792 patients (75.0% women) from 83 primary care clinics from 2007-2009	Examine link between patient-centred care and depression improvement	Patient-centred	Patient Assessment of Chronic Illness Care survey measured how patient-centred, proactive, planned, and collaborative patients found their care: • Treatment preferences • Concerns and questions • Clinicians considered your goals and values when recommending treatments	• At 6 months, 37% of 792 patients Ages 18–88 achieved depression remission, and 79% rated their care as good-to-excellent • Measures of patient-centredness associated with remission at 6 months: asked for ideas and preferences regarding treatment (p=0.04), asked about

				• Provided treatment plans you could do in your daily life • Asked about side effects of treatment • Encouraged to attend community programs • Told about changes to make in daily life that could help • Given written information • Referred to a nurse or other clinician who works with the physician to help you • Called by a health professional who works with your physician to follow-up on how treatment was working Depression severity was self-rated using the PHQ-9 and remission was defined as a score < 5.0 Depression care quality was assessed with: over the past month, how would you rate the quality of care you have received for depression at your primary care clinic (excellent to poor)?	concerns or questions (p=0.03), provided with treatment plans (p=0.04), asked to complete a depression screen (p=0.01) and asked about thoughts of suicide or self-harm (p=0.008) Soliciting patient preferences for care and questions or concerns= (0.0001), providing treatment plans (p=0.0002), feeling that providers asked about values and preferences (p<0.0001), utilizing depression scales (p<0.0001) and asking about side effects (p<0.0001) positively associated with quality ratings
Jani 2012 Scotland (37)	Qualitative observation of 356 visits with 25 GPs in deprived areas (107 patients, 67.3% women) and 303 visits with 20 GPs in affluent areas (56 patients, 78.6% women)	Assess if depression care is patient-centred	Patient-centred care	Physician empathy assessed with the Consultation and Relational Empathy (CARE) questionnaire measure: • Making you feel at ease • Letting you tell your “story” • Really listening • Being interested in you as a whole person • Fully understanding your concerns • Showing care and compassion • Being positive • Explaining things clearly • Helping you to take control • Making a plan of action with you	• Mean consultation length was similar in deprived and affluent areas • Mean CARE measure was lower in deprived areas (p=0.003) compared with affluent areas • Mean global score of Measure of Patient Centred Communication was lower in deprived areas (p=0.004), as were the components of exploring disease and illness, and finding common ground

				Verbal communication assessed with the Measure of Patient-Centred Communication: - Exploring disease and illness experience - Understanding the whole person - Finding common ground Non-verbal communication assessed with Mehrabian's schemata for number of: - Smiles, and their duration - Positive facial expressions - Head nods - Supportive gesticulations - Gaze toward patient, and their duration - Use of computer and notes ,and their duration	GPs in deprived areas looked at patients for shorter times (p=002), had fewer head nods (p=001), and fewer positive facial expressions (p=0.013)
Chapman 2008 United States (38)	Qualitative observation of 88 consults with 6 female standardized patients to 46 general practitioners for discussions of depression	Assess link between patient-centred communication and physician personality	Patient-centred	Communication assessed with the Measure of Patient-Centred Communication (MPCC): - Exploring disease and illness experience - Understanding the whole person - Finding common ground Physician personality assessed with NEO Personality Inventory - Anxiety - Vulnerability - Tender mindedness - Dutifulness - Openness to feelings	Physicians who were more open to feelings engaged in greater communication about the patient's illness experience (MPCC component 1; p=0.05) Higher dutifulness was associated with higher scores on component 2 (whole person; p=.03) but lower scores on component 3 (finding common ground; p= 0.02) Greater anxiety or vulnerability was associated with lower component 3 (common ground) scores (p= 0.03)

PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	N/A
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	5
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	N/A
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	N/A
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	7
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	8
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	9
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	7
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	11
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	7
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	N/A
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	N/A
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	11

PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	N/A
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	N/A
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	12
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	12
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	N/A
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	N/A
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	N/A
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	N/A
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	N/A
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	16
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	18
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	17
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	20

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

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