

Does ethnicity and culture affect the non-compliance of cervical cancer screening?"

Abstract

Background: Globally, an estimated 528,000 women develop cervical cancer (CC) each year, 266,000 of whom die from the disease.¹ CC is the fourth most-common cancer in women worldwide and fourteenth in the UK, where 3,200 cases are diagnosed each year.² In England CC is more common among White females and more common among women in deprived areas. In 1989, the NHS Cervical Screening Programme (NHSCSP) developed a screening programme aimed at identifying women who may be at risk of developing CC. However, incidence rates for CC are projected to rise by 43% in the UK between 2014 and 2035, to 17 cases per 100,000 females by 2035, which suggests that there are ongoing barriers that may be preventing women from attending cervical cancer screening (CCS). The primary goal of this extended literature review, it to examine these barriers, with particular emphasis on the extent to which they are shaped by ethnicity.

Methodology: The research question and selection of relevant keywords were formulated using the PICO(S) framework. Six databases were used to search for relevant literature. Cumulative Index of Nursing and Allied Health Literature (CINAHL), Medline and SCOPUS provided literature specific to the nursing and allied health perspectives while PsycINFO and Applied Social Sciences Index and Abstract (ASSIA) were used to find studies focused on sociological and psychological aspects of the research question. The use of the Cochrane database provided previous research papers relevant to the topic. All papers were screened for eligibility against the inclusion and exclusion criteria and critically appraised, and quality assessed using the Joanna Briggs Institute (JBI) checklist for systematic reviews, with reference to the Boland, Cherry & Dickson³ theories of methodology.

Results: Thematic analysis of the eight studies was carried out in line with the process outlined by Braun & Clark⁴ to identify recurring themes and barriers to CCS access: (1) Psychological and emotional barriers (2) Financial barriers (3) Perceptions and previous experiences.

Discussion: The barriers are applicable to women from all ethnicities, to varying degrees. However, females from marginalized, educationally deprived or underserved groups are less likely to attend CCS screening due to the barriers identified. This has immense implications for CC policy and practice.

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Leah Hennessey, Ian Shaw, Gary G Adams, Samuel Okyere

The University of Nottingham, UK

Correspondence: Gary G Adams, The University of Nottingham, School of Sociology and Social Policy, Law and Social Sciences, University Park, Nottingham, NG7 2RD UK, Tel +44(0)115 82 30901, Email Gary.adams@nottingham.ac.uk

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Introduction

Cervical Cancer Screening (CCS) is a process used to identify women who appear healthy but may be at higher risk of CC by detecting and treating abnormalities of the cervix.^{5,6} Since 1989 the NHS Cervical Screening Programme (NHSCSP) has offered this service to women in the UK. However, a report Public Health England⁷ states that 'screening coverage has fallen over the last 10 years and attendance is now at a 19-year low'. Attendance is lowest among women from ethnic minority backgrounds. A study of this issue found that 12% of Black and Minority Ethnic (BAME) had never attended screening (compared to 8% White ethnicity) while 30% of Asian women reported not knowing what cervical screening is.⁸ In a context where CC rates are projected to rise between 2014 and 2035 by 43% in the UK alone,² there is the need for further research to better understand the reasons for this disparity.

Aim and objectives

Aim: To explore relevant literature that examines women's suggested

barriers to the non-attendance of CCS, with emphasis on the extent to which these are shaped by ethnic and cultural factors

Objectives:

1. To identify relevant literature relating to the non-compliance of CCS.
2. To determine the quality of the chosen studies by critically analyzing the evidence provided within the research papers, drawing on recurring themes using a thematic analysis.
3. To discuss the recurring themes with reference to wider research and literature, whilst identifying the implications for future practice.

Methodology

The process utilised for this evidence synthesis followed the five key constituents of an enhanced literature review (ELR) of systematic review approach articulated by Boland, Cherry & Dickson³ and the Joanna Briggs Institute (JBI).⁹ These five stages: identifying a suitable

question, a discussion of the inclusion and exclusion criteria, an assessment of the quality of the literature sourced, the extraction of specific data which is only applicable to the research question and data amalgamation, and their use for this systematic review have been fleshed out in the proceeding sections

Details of the search strategy

An initial search for relevant literature was conducted between 19th October 2017 and 3rd April 2018. A set of keywords initially identified 91,906 papers which were relevant to the topic. Following Aveyard's¹⁰ advice, the keywords were connected further utilizing Boolean operators such as 'OR' and 'AND' to produce precise search terms relevant to the ELR. By using Boolean operator 'OR' consideration was given to alternative keywords that may have been used within international studies or by authors of different ethnicity and cultural backgrounds. This helped with inclusion of previously unconsidered papers and provided a more international perspective to the search.¹¹ Use of 'AND' enabled the keywords to be incorporated together to narrow down the literature and enable the search to be more defined to the topic area (Table 1). The Cumulative Index of Nursing and Allied Health Literature (CINAHL),¹² Medline and SCOPUS were used to find papers relevant to the nursing and allied health perspective of the question. PsycINFO and Applied Social Sciences Index and Abstract (ASSIA) provided literature specific to the social, sociological and psychological aspects of the research question (non-compliance of CCS). Cochrane database was used to search for papers in human health care, including health policies and to increase the validity of the papers used for this ELR. Papers in this database are recognised internationally as being high quality systematic (rather than narrative) reviews.

Table 1 Keywords

Keyword	Alternative word
Cervical cancer screening	Smear Testing
Ethnicity	Race
Non-compliance	Non-adherence

Inclusion and exclusion criteria

Inclusion and exclusion criteria determines what papers are relevant to the specified question or aim, and hence examined for an ELR Aveyard's.¹⁰ The databases used for the search allowed for inclusion and exclusion data to be synthesized, to provide the most relevant results. International studies were included in the inclusion criteria, however only papers in the English language were considered in order to save time, translation costs etc. To ensure relevancy and currency, only papers produced after 2008 were included.

Sourced literature

The inclusion and exclusion criteria were used for a meta-analysis of the initial 91,906 papers found, reducing the number to 9,254 as demonstrated on the PRISMA flow diagram (Figure 1) further discussed in the results section of the paper.

Critical appraisal

The JBI Critical Appraisal Checklist for Systematic Reviews and Research Syntheses⁹ was employed due to its extensive peer review collaborations and approval by the JBI Scientific Committee. Each

paper was systematically read and summarized within a matrix (see appendix 3) and the JBI Critical Appraisal Checklist for Systematic Reviews and Research Syntheses was used to quantify the limitations, strengths and validity of each paper as suggested by Grove & Burns & Gray.¹³

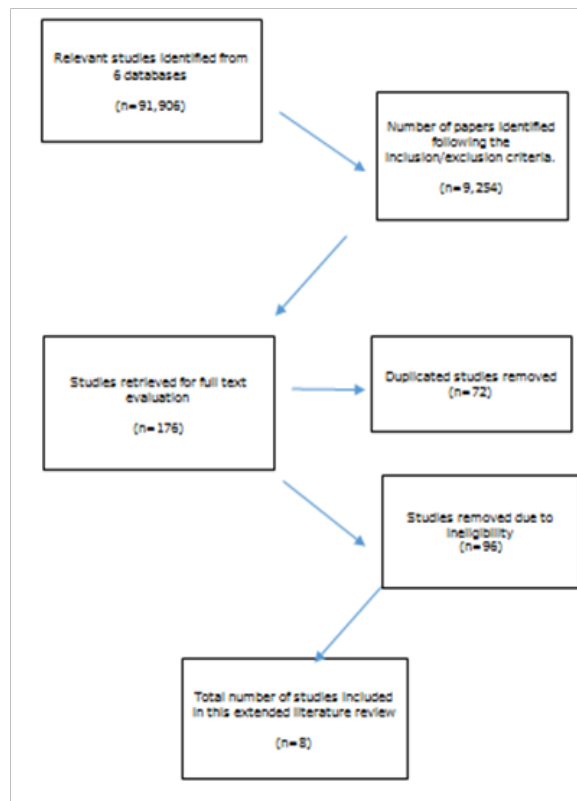


Figure 1 PRISMA flow Diagram.

Results

A meta-analysis of the (n=9,254) papers was conducted to synthesize the number of papers used for the ELR. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram¹⁴ demonstrates a simple guide to presenting information in an understandable way and provides justification to why articles have been chosen or eliminated from the process. Through thematic analysis of the studies used for this ELR (n=8), three recurring themes were identified: (1) Psychological/emotional barriers (2) Financial barriers (3) Perceptions and previous experiences and discussed in subsequent sections.

Psychological/emotional barriers

Four of the eight studies revealed psychological or emotional issues as barriers to women's CCS attendance. Three of the five studies^{15,16} used qualitative approaches while one¹⁷ used a quantitative approach. In their study, Reiter & Linnan¹⁷ examined cross-sectional data from (n=1123) African-American (AA) women to determine their compliance with CCS guidelines. This study included an amalgamation of data on CCS, Mammography and screening for colorectal cancer. For the purpose of this ELR, where possible, CCS data has been extracted from the paper. Statistical information from some of the women's (n=673) responses on receiving cancer-

screening test (specific test was not indicated in the original study) was examined. 98.7% (N=1041/1054) stated that they intended to have CCS within the next three years while 95.1% (n=610/ 641) stated they would have CCS if a physician recommended it. However 22.2% (n=151/575) 26.2% indicated that ‘cancer screening tests are too painful’ while 26.1% (n=154/589) were of the view that ‘cancer screening tests are embarrassing and/or uncomfortable’. Waller et al.,¹⁵ explored barriers to CCS attendance using face to face interviews with adult women (n=580), chosen via stratified random probability sampling. 82.5% (n=486/580) of women were of White British ethnicity compared to 15.9% (n=94/580) of ‘other’ ethnic origin. 13.7% of women (n=81/580) agreed with the barrier statement ‘I worry that a smear test will be painful’ compared to 84.3% (n=497/580) who did not. Interestingly, 14.3% of the latter (n=71) were still overdue CCS. The barrier statement ‘Smear tests are embarrassing’ had 28.3% (n=167/580) endorsement and (n=411/580) 69.7%, non-endorsement. In this instance too, 14.1% (n=57.9) of women within this category overdue CCS.

Ocarsson & Wijma & Benzein¹⁶ study with (n=14) women in Sweden who had chosen not to attend CCS within the last five years similarly raised emotional or psychological issues. The Meaning unit was broken into three subthemes and the theme ‘I do not want to’ used as a common subject for conversations with the women. A participant indicated that ‘I do not want to.... because I do not like my body’, while another also answered that “The idea of a doctor touching my body like that makes me feel ill” and another also suggesting that “I have always been what they call shy at times”. Peake et al (2008) study sought to understand the barriers to CCS uptake for 35 Human Immunodeficiency Virus (HIV)-1 seropositive African American women who had not attended CCS for five years or more. Similar to the studies discussed thus far¹⁵ psychological/emotional factors were a major impediment to attending CCS. The most significant were perceptions of the stigma attached to being HIV-positive and the thought that health-care providers would ‘shun them or treat them badly’ due to their diagnosis. In summary, these five papers^{16,17} show that irrespective of ethnicity, psychological/emotional factors are a major obstacle to women’s CCS attendance (Table 2).

Table 2 Summary of psychological/emotional barriers from included studies

#	Author/Year	Country	Method	Sample Size	Characteristics of psychological/emotional barriers	Ethnicity/Culture	Outcome
1	Ocarsson, Wijma and Benzein (2008) (Paper A) ¹⁶	Sweden	Mixed Method	(n=120) study group VS (n=400) Control Group	Low self-esteem and negative body Image contributed to compliancy with CCS. (n=23/120) 19.2% advised that if they were treated in a friendly way and (n=11/120) 9.1% required a special examiner of their choice, then they would attend CCS.	The study only involved women who were already registered on the CR. Mean age of women: Study group (46.9) Control group (45.5). Ethnicity: statistics only included if the participants was born in Sweden or elsewhere – (n=101) 84.2% of women were born in Sweden. (n=19) 15.8% were not. Socio-demographic information: Education level:– (n=29) 24.2% attended Primary school, (n=55) 45.8% attended Secondary school and (n=36) 30% attended College or University. Marital Status: (n=73) 60.8% women were with a partner. (n=47) 39.2% women were single.	The study only involved women who were already registered on the CR therefore cultural statistics are minimal. Ethnicity was not analysed enough to be able to comment on ethical choices.

Table Continued

#	Author/Year	Country	Method	Sample Size	Characteristics of psychological/emotional barriers	Ethnicity/Culture	Outcome
2	Reiter and Linnan (2011) ¹⁷	U.S.A	Quantitative	(n=1123)	(n=1041/1054) 98.7% advised that they intended to go for CCS within the next three years. (n=154) 26.1% advised CCS is embarrassing/ or uncomfortable. (n=154) 26.2% advised that CCS is too painful.	Ethnicity: All women were AA Socio-demographic information included: Marital Status: (n=567) 52% were divorced, widowed, separated or never married) (n=520) 48% were married. Education level: (n=163) 15% had high school diploma or less, (n=410) 38% had some college and (n=520) 48% had a college degree or higher. Employment status: (n=202) 18% were not employed, homemaker or student. (n=921) 82% were working/self-employed.	Study showed a high percentage of women that intended to have CCS in the next three years. Socio-demographic information shows that most of the women within the study were working and had a good amount of education.
3	Waller et al (2009) ¹⁵	England, U.K	Qualitative	(n=580)	(n=81) 13.7% worried that CCS was painful. (n=497) were not worried about pain, however (n=71) 14.3% were still overdue CCS. (n=167) 28.3% were embarrassed. (n=411) 69.7% did not mention being embarrassed however (n=57) 14.1% were still	Ethnicity: (n=486) 82.5% of women were White British (n=94) 15.9% were of 'other' ethnic origin. Socio-demographic information was not included within the statistics.	Fear of pain and embarrassment were not as high as other studies, however statistics show that there were women who were still overdue CCS.
4	Ocarsson, Wijma and Benzein (2008) (Paper B) ¹⁹	Sweden	Qualitative	(n=14)	Body perception/image. Not wanting to be touched by another person. Feeling shy.	Statistical information regarding ethnicity and socio-demographics were not included within the results but the study was approved by Regional Ethics Committee for Human research.	The study showed that women advised that they had psychological and emotional barriers to CCS.
5	Peake et al (2008)	U.S.A	Qualitative	(n=35)	Embarrassment Shame of being HIV-positive Stigma around healthcare workers 'Shunning' them due to their diagnosis. Fear of pain. Embarrassment Shame of being HIV-positive Stigma around healthcare workers 'Shunning' them due to their diagnosis. Fear of pain.	Ethnicity: All women were AA women who were HIV-positive. Socio-demographic statistics were not included within the study.	The study showed that women with comorbidities had psychological and emotional barriers to CCS.

Financial barriers

Five of the eight studies reveal financial barriers as a contributory factor to women's CCS non-attendance. Two of these used quantitative approaches,^{17,18} one used a qualitative approach (Peake et al, 2008) and the other two used mixed methods.^{19,20} Of the total of 1123 in Reiter & Linnan¹⁷ 32% (n=193/600) indicated that cancer-screening 'costs too much'. 18% of the women (n=202/1123) were unemployed compared to 82% (n=921/1123) who were employed. 10% (n=112/1123) had health insurance compared to 90% (n=977/1123) 90% who did not have cover. 62% (n=632/1123) had an average income of under \$50,000 in comparison to 30% (388/1123) 38% with an income of over \$50,000. Kaur & Kaur¹⁸ quantitative study with adult women (n=300) in a medical college and hospital in Punjab employed '20 items to assess the awareness of women regarding CC' and found that 37.7% (n=113) had adequate awareness compared to (n=187) 62.3% who were inadequately aware. A correlation was found between the women's awareness of CC, their economic and financial background and their age at marriage. (n=99/300) 64.3% of inadequately aware women were married between the ages of 18-21 while (n=153/300) 61.7% of women that were inadequately aware were 'housewives' without an income of their own. Peak et al., (2008) study with 35 HIV-1 seropositive AA found that women without health insurance found it difficult to 'navigate the insurance system successfully' as they were 'unable to seek medical advice without medical insurance'.

Of the (n=35) women interviewed only (n=2) 0.7% had medical insurance, (n=12) 4.2% were receiving Medicaid (a joint federal and state program helping people with limited income and resources with medical costs, and (n=21) 60% were uninsured. The women indicated that they faced 'lack of funds' to pay for medical expenses. (n=29) 82.8% were unemployed.

Ocarsson, Wijma & Benzein¹⁹ similarly found that (n=6/120) 5% of women were prepared to undergo CCS if 'Cervical Smear testing was taken at a lower cost/ free of charge. (n=49/120), though 40.8% did not address the requirement to attend CCS in the questionnaire. Bharel et al.,²⁰ study was on the disparities in cancer screening and the acceptance of pap smears amongst homeless women. It involved, a convenience sample of (n=205) adult women who were in receipt of respite care within a facility for homeless people in USA. (n=129/205) 63% of the 205 women were overdue and offered CCS. (n=80/205) 62% accepted, (n=49/205) 38% declined and (n=56/205) 70% received CCS. This study offered CCS free of charge and made it easily accessible to the homeless women, however the statistics show that CCS was still being declined.

Despite this divergence, the overriding thematic finding from the five papers^{16-18,20} is that costs associated with of CCS are notable obstacles to appointments and attendance by women. Table 3 provides a Summary of financial barriers from included studies (Table 3).

Table 3 Summary of financial barriers from included studies

#	Author/Year	Country	Method	Sample Size	Characteristics of financial barriers	Ethnicity/Culture	Outcome
1	Reiter and Linnan (2011) ¹⁷	U.S.A	Quantitative	(n=1123)	(n=1041/1054) 98.7% advised that they intended to go for CCS within the next three years. (n=193) 32% advised that Cancer Screening costs too much.	Ethnicity: All women were AA. Socio-demographic information included: Employment status: (n=202) 18% were not employed, homemaker or student. (n=921) 82% were working/self-employed. Average Income: (n= 632) 62% had an average income of under \$50,000 (n=388) 38% had an average income of over \$50,000. Health Insurance: (n= 112) 10% had no health Insurance, (n=977) 90% had health Insurance.	Study showed a high percentage of women that intended to have CCS in the next three years. Socio-demographic information shows that most of the women within the study were covered by Health Insurance with 38% of women earning an average of \$50,000 or more per year.
2	Kaur and Kaur (2012) ¹⁸	India	Quantitative	(n=300)	Financial implications are mentioned, as in some cultures the male role is to provide the income for the family whilst the women stay at home as housewives.	Ethnicity: All women were Punjabi Socio-demographic information included: Employment Status: (n=52) 17.3% of women were employed, (n=248) 82.6% were housewives. Average Income: (n=267) 89% had an income of less than 20,000. (n=33) 11% had an income of over 20,000. Age at marriage: (n=67) 22% were under the age of 18 when married, (n=233) 78% of women were married after the age of 18. Education: (n=290) 96.6% had education to graduation level with only (n=10) 3.3% of women at post-graduation and above. (n=99) 64.3% of inadequately aware women were married between the ages of 18 and 21 and (n=153) 61.7% were housewives.	More women were inadequately aware of CCS and its benefits and risks, compared to being adequately aware. Socio-demographic information such as: education, age at marriage and occupation can affect how aware women are of CCS.

Table continued

#	Author/Year	Country	Method	Sample Size	Characteristics of financial barriers	Ethnicity/Culture	Outcome
4	Ocarsson, Wijma and Benzein (2008) (Paper A) ¹⁶	Sweden	Mixed Method	(n=120) study group VS (n=400) Control Group	The study shows that (n=6) 5% of women advised they would attend CCS if the cost was lower/free of charge however (n=49) 40.8% of women did not mention any requirements needed to attend CCS.	The study only involved women who were already registered on the CR. Mean age of women: Study group (46.9) Control group (45.5). Ethnicity: statistics only included if the participants was born in Sweden or elsewhere – (n=101) 84.2% of women were born in Sweden. (n=19) 15.8% were not. Socio-demographic information included: Education level:– (n=29) 24.2% attended Primary school, (n=55) 45.8% attended Secondary school and (n=36) 30% attended College or University.	A small amount of women advised that cost implications prevented them attending CCS.
5	Bharel et al (2009) ²⁰	U.S.A	Mixed Method	(n=205)	The study showed that (n=129) 63% homeless women were overdue CCS. Cost implications for travel and medical care were seen to external barriers for not attending CCS.	Ethnicity: (n=66) 32.4% of women within the study were of Black ethnicity. (n=113) 55.4% of women were of white ethnicity and (n=25) 12.3% were of 'other' ethnicity. Socio-demographic information: (n=205) 100% of the women within the study were homeless and in current receipt of respite care.	All women were offered CCS free of charge, however (n=49) 38% women still refused CCS.

Perceptions and previous experiences

Four of the eight studies revealed that negative perceptions of healthcare and unsuitable appointment times, along with previous negative gynecological examinations contributed to the non-compliance of CCS. MacArthur et al,²¹ study was quantitative; Waller et al,¹⁵ & Ocarsson, Wijma & Benzein¹⁹ were qualitative and Ocarsson, Wijma & Benzein¹⁶ mixed methods. MacArthur et al.,²¹ used time-series regression analysis between the years of 2000 and 2010 in UK to determine the impact of mass media coverage (MMC) reporting of the death of a celebrity from CC on CC screening rates. The study found that (n=33,000) CCS tests were carried out in the year of reporting (2008/2009) and (n=11,539) with 35% CCS occurring in the month of the death of the celebrity. Women between the ages of 35-39 years were the largest proportion of women attending CCS where an increase was evident. The study suggests that impacts were similar across deprivation quintiles however the statistical data is not reported by the paper.

Waller et al.,¹⁵ & Ocarsson, Wijma & Benzein¹⁹ both examine women's perceptions and previous experiences of the healthcare trust in relation to CCS. Waller et al.,¹⁵ used face to face interviews

with adult women in the UK (n=580) (n=486/580) 83.7% of whom were of White British ethnicity and (n=94/580) of 'other' ethnic origin as stated within chapter 3.2. The study's measurement of 'barrier statements' from the interview found that (n=53/580) 16.2% of women had had 'bad experience of a smear test within the past'. Of this number, 22.6% were overdue CCS. The study also found that (n=7/580) 1.2% 'did not trust the smear test'. 57.1% of these women were overdue CCS. It was also found that (n=43/580) 7.4% women found it 'difficult to get an appointment to fit in with work/childcare commitments' and of those women, 30.2% were overdue CCS. In Ocarsson, Wijma & Benzein¹⁹ study, previous negative experiences were bought up by all of the women involved in the study (n=14) 100%. A participant indicated that 'It hurt so much that they held me down' and 'I moved, and they held on to me, I was pinned down'. Another highlighted her displeasure with how she was looked by medical personnel: 'somehow he looked at me as if I was some kind of hypochondriac'. In Ocarsson, Wijma & Benzein¹⁶ the issue was about in conducive appointments. 17.5% (n=21/120) of the women responded that they would attend a CCS appointment if a suitable time was available with the possible availability of 'drop in' appointments to better suit their needs (Table 4).

Table 4 Summary of Perceptions and previous experiences from included studies

#	Author/Year	Country	Method	Sample Size	Characteristics of perceptions and previous experiences	Ethnicity/Culture	Outcome
1	MacArthur et al (2011) ²¹	Wales, U.K	Quantitative	(n=33,000) a time series regression.	The study found that MMC of CCS and the impact of the death of a celebrity had a positive impact on the amount of women attending CCS during 2008-2009.	Ethnicity and socio-demographic information was not provided within this study.	More women attending CCS in 2008-2009 after the reporting of a death of a celebrity from CC. 36% of Media coverage of the death reported the information of the treatment provided yet only 5% mentioned risk factors for CC.

Table Continued

#	Author/ Year	Country	Method	Sample Size	Characteristics of perceptions and previous experiences	Ethnicity/ Culture	Outcome
2	Waller et al (2009) ²²	England, U.K	Qualitative	(n=580)	(n=53) 16.2% had previous bad experiences of smear testing within the past and 22.6% of these women were overdue CCS. (n=7) 1.2% of women did not trust CCS of which 57.1% of these women were overdue CCS. (n=43) 7.4% found it difficult to get an appointment for CCS and of these women 30.2% were overdue CCS.	Ethnicity: (n=486) 82.5% of women were White British (n=94) 15.9% were of 'other' ethnic origin. Ethnicity: (n=486) 82.5% of women were White British (n=94) 15.9% were of 'other' ethnic origin. Socio-demographic information was not included within the statistics.	Appointment times were not flexible and had an impact on the non-compliance of CCS. Although only a small number of women did not trust CCS, this had the largest percentage of non-compliance with CCS.
3	Ocarsson, Wijma and Benzein (2008) (Paper B) ¹⁹	Sweden	Qualitative	(n=14)	100% of women within the small study of 14 mentioned distrust in CCS due to previous negative experiences.	Statistical information regarding ethnicity and socio-demographics were not included within the results but the study was approved by Regional Ethics Committee for Human research.	The study showed that previous negatives experiences will reduce the likelihood of women attending CCS.
4	Ocarsson, Wijma and Benzein (2008) (Paper A) ¹⁹	Sweden	Mixed Method		(n=120) study group VS (n=400) Control Group	(n=21) 17.5% of women would attend CCS if suitable appointment times were available.	The study only involved women who were already registered on the CR. Mean age of women: Study group (46.9) Control group (45.5). Ethnicity: statistics only included if the participants was born in Sweden or elsewhere – (n=101) 84.2% of women were born in Sweden. (n=19) 15.8% were not. Socio-demographic information included: Education level:– (n=29) 24.2% attended Primary school, (n=55) 45.8% attended Secondary school and (n=36) 30% attended College or University. Marital Status: (n=73) 60.8% women were with a partner. (n=47) 39.2% women were single.

Discussion

Psychological/emotional barriers

Analysis of five of the eight selected papers^{15–17,19} show that psychological/emotional barriers prevent women from attending CCS. At face value, it may be concluded that ethnicity and culture are not major barriers or obstacles to CCS attendance because the findings cut across all ethnicities involved (White, African American, Indian). However, deeper analysis shows Waller et al.,¹⁵ study involved only women from a White ethnic background and was the only study in which psychological and emotional barriers were particularly significant. The other four studies with more ethnically and culturally diverse participants revealed a higher association between psychological and emotional barriers and ethnicity or culture. Similar findings have been made elsewhere. For instance in their study, Marlow et al.,²² found that ‘emotional barriers (fear, embarrassment and anticipated shame) might contribute to explaining lower cervical screening coverage for some ethnic groups’, while Chorley et al.,²³ also established emotional barriers of fear and shame among ethnic minority women who believe that their naked body should only be seen by their husband.

Expressions of shame and embarrassment in attending CCC were especially prominent in Peak, et al (2008) study which involved African American women living with HIV. These emotional and psychological barriers were shaped by the women’s ‘stigmatized’ identities and fear that they would be “shunned” by healthcare professionals providing CCS. In the USA, previous studies have shown CCS and CC outcome differences on ethnic and racial lines due to the history and persistence of racial and ethnic discrimination against Blacks, Latinos and other minority ethnic groups. Globally, in rich and low income countries alike, minority ethnic groups from immigrant and indigenous populations alike are more likely to face obstacles to CCS attendance due to personal factors often shaped by structural discrimination and exclusion²⁴ The confluence of their ethnicity and their HIV positive status therefore informs a fear of potential ‘double-discrimination’ among the women in Peake at al (2008). This highlights how the interplay between racial discrimination and factors such as disease might further heighten psychological and emotional barriers to CCS attendance.

A similarly significant factor and finding by the study is financial considerations or barriers. A study by Fokom-Domgue, et al.,²⁵ which analysed the reasons why CC is the leading cause of cancer deaths among women in 15 less-developed countries also found cost constraints linked with screening and treatment as one of the major reasons. In the UK, CCS provision is free unlike Sweden, USA and India where the other studies examined for this analysis were based. It might therefore be concluded that financial or cost constraints should not be a barrier to women’s CCS attendance in the UK. However, financial burden or constraints can extend to things such as transportation access, being able to obtain or sacrifice time off work, and other income earning opportunities to attend the screening and so on. Given that those from ethnic minority backgrounds are more likely to experience socio-economic hardship and deprivation and BAME workers over a third likely (1 in 13 BAME versus 1 in 20 White) to be in insecure work and precarious work conditions according to the TUC²⁶ low CCS attendance within this demography in the UK may still be shaped by financial considerations even in this context where the service is free. Given the increasingly blurred lines between class and race under conditions of austerity and globalisation, the ethnicity linkage is also applicable to women from ‘racialised’

ethnic populations who face the same socio-economic deprivation as those from BAME backgrounds.²⁷ It is also worth noting that financial constraints also adversely impact on general knowledge and awareness of CCS as shown by Kaur & Kaur¹⁸ involving housewives without control over the family finances or having their sources of income. Thus, even where the service is free, lack of knowledge about CCS and CC more broadly may mean that women, especially those in most deprived conditions, are unable to benefit from it. This is consistent with other studies which have found an association between levels of awareness of CCS and women’s educational level, employment status and age at marriage.²⁸ The study’s third finding, perceptions of healthcare and previous negative experiences shows how distrust between certain individuals and social groups can adversely impact CCS attendance. A systematic review of studies based in the UK, USA and Australasia and focused on the factors contributing to low access to, and knowledge of, cancer testing among people of African descent, White Irish or South Asian origin (people born in, or descended from those born in Pakistan, India, Bangladesh or Sri Lanka) found that mistrust in the health care system due to previous experiences and how their data might be used as key contributory factor to low genetic testing for cancer among these groups.²⁹

Conclusion

As incident rates of CC are projected to rise within the next 17 years by 43%,² it is imperative to gain insight into the barriers that women face when attending CCS. The evidence generated in this review highlight that, to varying degrees, women from all ethnicities face barriers to CCS attendance ranging from psychological/emotional to financial and a legacy of undesired previous experiences. Provision of more suitable appointment times, education programmes and training in socio-economically marginalized areas, CCS training for all nursing staff to recognize the specific needs of each woman and provide more inclusive and holistic care, addressing systematic inequalities affecting certain those from minority ethnic groups may help improve CCS compliance among this group. Finally, further primary research studies and wider scale meta-analyses are required to bring into sharper focus the dynamics surrounding ethnicity and low CCS compliance.^{30–33}

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Conflict of interest

Author declares that there is no conflict of interest.

References

1. Ferlay J, Soerjomataram I, Ervik M. Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11. *GLOBOCAN*. 2012:1.
2. Burns N, Grove SK. The practice of nursing research: conduct, critique and utilization. W.B.Saunders: Philadelphia. 2001.
3. Cancer Research UK. Cervical cancer. 2018.
4. Boland A, Cherry G, Dickson R. Doing a systematic Review: A Student’s Guide. London: SAGE Publications. 2013.
5. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006;3(2):77–101.
6. Public Health England. Cervical screening: programme overview. 2015.

7. World Health Organisation. 2018.
8. Public Health England. *Health matters: making cervical screening more accessible*. 2017.
9. Jo's Cervical Cancer Trust. *The differing understanding of cervical screening among white women and women from a Black, Asian and Minority Ethnic (BAME) community*. 2011.
10. Joanna Briggs Institute (JBI). *Critical Appraisal Checklist for Systematic Reviews and Research Syntheses*. 2017.
11. Aveyard H. *Doing a Literature Review in Health and Social Care*. Berkshire: McGraw Hill Education. 2010.
12. Booth A, Papaioannou D, Sutton A. *Systematic Approaches to a Successful Literature Review*. London: SAGE Publications. 2012.
13. The Cumulative Index to Nursing and Allied Health Literature (CINAHL). *A Powerful Research Tool*. 2018.
14. Grove SK, Burns N, Gray J. *The Practice of Nursing Research: Appraisal, Synthesis, and Generation of Evidence*. Saunders: St. Louis. 2012.
15. Waller J, Bartoszek M, Marlow L, et al. Barriers to cervical cancer screening attendance in England: a population-based survey. *Journal of Medical Screening*. 2009;16(4):199–204.
16. Oscarsson MG, Wijma BE, Benzein EG. 'I do not need to...I do not want to...I do not give it priority...' – why women choose not to attend cervical cancer screening. *Health Expect*. 2008;11(1):26–34.
17. Reiter PL, Linnan LA. Cancer Screening Behaviors of African American Women Enrolled in a Community-Based Cancer Prevention Trial. *Journal of Women's Health*. 2011;20(3):429–438.
18. Kaur S, Kaur B. A Descriptive Study to assess the awareness of the women regarding Cervical Cancer. *International Journal of Nursing Education*. 2012;4(1):66–68.
19. Oscarsson MG, Wijma BE, Benzein EG. Nonattendance in a Cervical Cancer Screening Program-What Happens if Women's Requirements Are Met? *Health Care for Women International*. 2008;29(2):183–197.
20. Bharel M, Casey C, Wittenberg E. Disparities in Cancer Screening: Acceptance of Pap Smears among Homeless Women. *Journal of Women's health*. 2009;18(12):2011–2016.
21. MacArthur GJ, Wright M, Beer H, et al. Impact of media reporting of cervical cancer in a UK celebrity on a population-based cervical screening programme. *J Med Screen*. 2011;18(4):204–209.
22. Marlow LA, Waller J, Wardle J. Fam Barriers to cervical cancer screening among ethnic minority women:a qualitative study. *J Fam Plann Reprod Health Care*. 2015;41(4):248–254.
23. Chorley AJ, Marlow LA, Forster AS, et al. Experiences of cervical screening and barriers to participation in the context of an organised programme: a systematic review and thematic synthesis. *Psychooncology*. 2017;26:161–172.
24. Goodman A, Nour N. Cervical Cancer Screening: The Complex Interplay of Medical Infrastructure, Society, and Culture. *Oncologist*. 2014;19(4):315–317.
25. Fokom-Domguez J, Combesure C, Fokom-Defo V, et al. Performance of alternative strategies for primary cervical cancer screening in sub-Saharan Africa: systematic review and meta-analysis of diagnostic test accuracy studies. *The British Medical Journal*. 2015;351:1–10.
26. TUC. *BAME workers over a third more likely to be in insecure work, finds TUC*. 2017.
27. Webster C. Marginalized white ethnicity, race and crime. *Theoretical Criminology*. 2008;12(3):293–312.
28. Nwankwo KC, Aniebue UU, Aguwa EN, et al. Knowledge attitudes and practices of cervical cancer screening among urban and rural Nigerian women: a call for education and mass screening. *Eur J Cancer Care*. 2011;20(3):362–367.
29. Allford A, Qureshi N, Barwell J, et al. What hinders minority ethnic access to cancer genetics services and what may help? *Eur J Hum Genet*. 2014;22(7):866–874.
30. Cochrane. *What is Cochrane evidence and how can it help you?* 2018.
31. Critical Appraisal Skills Programme (CASP). *Making sense of evidence*. 2018.
32. National Institute for Health and Care Excellence (NICE). 2017.
33. Andrasik MP, Rose R, Pereira D, et al. Barriers to Cervical Cancer Screening among Low-Income HIV-Positive African American Women. *Journal of Health Care for the poor and Underserved*. 2008;19(3):912–925.