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The influence of socio-demographic characteristics on consultation for back pain—a review of the literature

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Background. There are several assumptions within clinical practice about who is more or less likely to consult a health care practitioner for particular symptoms, most commonly these focus around socio-demographic characteristics. We aimed to assess the evidence for the impact of socio-demographic characteristics on consultation for back pain.

Methods. We conducted a review of the literature, using systematic methods, on consultation for back pain. Using systematic searching techniques we identified peer-reviewed publications that focused on health care consultation in response to symptoms of back pain and which included data on both users and non-users of health care.

Results. We identified 23 studies. Definitions of help-seeking were inconsistent across studies. The majority of the 15 studies which considered the relationship between age and help-seeking for back pain did not find evidence of an association between these two factors. Seventeen studies considered whether socio-economic position was associated with help-seeking. The evidence largely supported the conclusion of no association (13 papers). Fifteen studies included gender as a variable in their analyses, and the majority (10 papers) presented the finding of no association.

Conclusions. The results from this review suggest that there is little evidence to support the common wisdom that socio-demographic characteristics impact on help-seeking in the context of back pain. As these assumptions relating to who is more or less likely to consult will ultimately affect patient care, it is important that they do not go unchallenged.

Keywords. Consultation, pain, socio-demographic, systematic review.

Introduction

The topic of consultation with health services or ‘help-seeking’ remains an issue of utmost importance given the conflicting targets of service providers—to manage increasing demand while ensuring appropriate and timely utilization by those who could benefit from care. Research interest in consultation patterns has varied over the last 30 years. The resulting literature is vast, methodologically varied and often conflicting, in part as a result of input from differing disciplinary perspectives. Despite this, there are some residual messages that prevail within clinical parlance about who is more or less likely to consult for particular symptoms. Most commonly these focus around socio-

demographic characteristics of the population, namely gender, age and socio-economic position.

Much of the interest in socio-demographic patterning of consultation arises from a desire for equity in access to health care. It has been noted that following Tudor Hart’s demonstration that good medical care tends to vary inversely with the need of the population served, the ‘inverse care law’,¹ a tradition of research has followed with the aim of investigating whether those of lower socio-economic position do have less access to health care.² Similarly, there has been a parallel agenda to highlight the problems women face when accessing care, although more recently there has been more emphasis on barriers to help-seeking among men.³ This, together with an interest in identifying and addressing

ageism within service provision,^{4,5} has produced a body of work attempting to highlight inequalities in access to care across socio-demographic characteristics. Work considering equity in access to health care has tended to draw the distinction between factors associated with the users of health care, providers of health care and the interface between the two. Here we focus on the user aspect of consultation.

It is a commonly held view that women are more likely than men to consult in primary care. On average, in the UK and elsewhere, women consult their GP more than men, especially in the reproductive years.⁶ It is widely presumed that this means that men are less willing to consult, although few studies have compared patterns of consultation in men and women with similar morbidity.⁷

In addition, there is a body of evidence that has contributed to the widely held view that older people may be less likely than other age groups to seek medical intervention. Following work from the 1960s that suggested that multiple health problems and disabilities among a community sample of older people were not known to their GP,⁸ other studies have noted that older people can be reluctant to seek treatment,⁹ due to, for example, the 'normalization' of their symptoms in relation to their age, otherwise known as 'age attribution'.¹⁰

The perceptions relating to the impact of deprivation on health care consultation are mixed, which reflects the changing evidence base on this topic. Macrostudies, predominately from the 1980s, did suggest underutilization of primary care services in relation to need among more deprived groups,¹¹ and this a view that prevails among some practitioners. However, among others there is a strong sense that those from more deprived backgrounds consult with GPs more frequently than those from less deprived backgrounds, perhaps with the exception of consultation for preventative measures.¹²

There remains debate regarding whether the observed higher attendance among differing socio-demographic groups can be explained by greater 'need', although measurement of need is very complex. By studying consultation for specific illnesses or symptoms, it may be easier to demonstrate whether 'need' is similar across socio-demographic groups.¹¹ Therefore, we have examined these commonly held assumptions about the characteristics associated with consultation behaviour using low back pain as an exemplar. Low back pain is common within the population; accounts for a significant work load within primary care and importantly, while physically and socially disruptive for the individual, only rarely is an indication of a serious life-threatening condition. It is frequently seen in primary care and is associated with high economic costs¹³ and reduced quality of life. It is estimated that ~6.5% of adults will consult with back pain over a 1 year period, with only 25% of these

consulters having undergone complete recovery in terms of pain and disability after 12 months.¹⁴

Many large-scale studies that consider consultation patterns using routine data do so by examining the characteristics of only those individuals who have consulted for a given condition or symptoms. This does not allow for comparisons between those who have symptoms who either do or do not consult with health services. By reviewing the literature on consultation for back pain 'among people with symptoms back pain', we were able to examine studies that were able to compare users and non-users of health care. Using systematic methods, we aimed to identify studies that had examined the relationships between socio-demographic characteristics and consultation. Through summarizing the literature on gender, age and socio-economic position, we wished to see if the commonly held beliefs about the consultation patterns of these groups were upheld within the literature on consultation for back pain.

Methods

We conducted a review of the literature on consultation for back pain. We used medical subject headings and text words to search several databases: Medline (Ovid; 1950 to October 2008), Embase (Ovid; 1980 to October 2008), PsycINFO (Ovid; 1806 to October 2008), CINAHL (Ovid; 1980 to October 2008), Social Science Citation Index (1956 to October 2008), Science Citation Index (1900 to October 2008), CDSR & DARE (Cochrane library—issue 4, October 2008), ASSIA (1987 to October 2008) and Sociological abstracts (1952 to October 2008). The literature search strategy was supported by Centre for Reviews and Dissemination, University of York. Health care consultation is found within the MESH term 'Patient acceptance of health care', which was used in the searches in combination with other keywords. The selection of keywords was informed by the search strategy used in a recent systematic review of access to health care.¹² These search terms identified for 'consultation' were then combined with the suite of terms identified back pain (see Appendix 1 for Medline search strategy). Where electronic copies of the articles were available, use was also made of 'cited by' and 'related article' functions of the journals concerned. We also inspected reference lists of included and other relevant studies. In addition, we had correspondence with key authors in the field to attempt to identify any additional references; however, we did not attempt to contact individual authors of the papers included.

Selection

We considered only peer-reviewed publications/abstracts that focused on consultation (the definitions of

consultation are discussed below) in response to symptoms of back pain and which included data on both users and non-users of health care. We restricted our review to those studies that were on adults, conducted in developed countries, based on observational epidemiological methods and written in English. Studies which did not specify the nature of the symptoms experienced and those which focused on referral patterns, repeated or frequent consultations, or which exclusively examined consultation with services outside of primary care were excluded.

Two reviewers independently assessed electronic outputs (titles and abstracts) in order to identify all potentially relevant studies, for which full-text articles were obtained (see Fig. 1 for flow chart of search process).

Data extraction and analysis

One reviewer (JA) extracted data using a template covering key study characteristics, prevalence of consultation for back pain and the factors associated with consultation for back pain (including the size of any observed association). All data extraction was double checked (KH and IN) and, in the case of any discrepancies, consensus was reached following discussion.

Definition of consultation

We have used authors' own definition of consultation. We were primarily interested in consultation with primary care, but not all authors define consultation in these terms. In order to maximize the comparability between studies, where available, we have recorded consultation with a GP and consultation with any other service provider.

Prevalence of consultation

When we identified multiple publications based on the same study, the earliest paper was selected for representation in Tables 1 and 2, although reference is made to any later publications where appropriate. For studies that included various subgroup analyses, the data on prevalence of consultation are based on the largest sample for each study. If a paper did not report the prevalence of consultation, where possible these figures have been calculated.

Factors associated with consultation

Vote counting was employed as a means of providing an overview of the findings from the individual studies. While this has several limitations, it has been advocated as a 'last resort' when the papers to be included in a review have no consistent outcome measure and so standard meta-analytical techniques cannot be utilized.³⁸ This applies to the data presented here.

Each of the characteristics of interest (age, gender and socio-economic position) was categorized as having a positive, negative or equivocal association with consultation. This approach was utilized in order to maximize the use of the available data and to include information from several studies that did not provide measures of association but merely stated in the text that there was no association between one of the socio-demographic characteristics and consultation.

Results

The search strategy for help-seeking for back pain identified 23 eligible publications for this review of

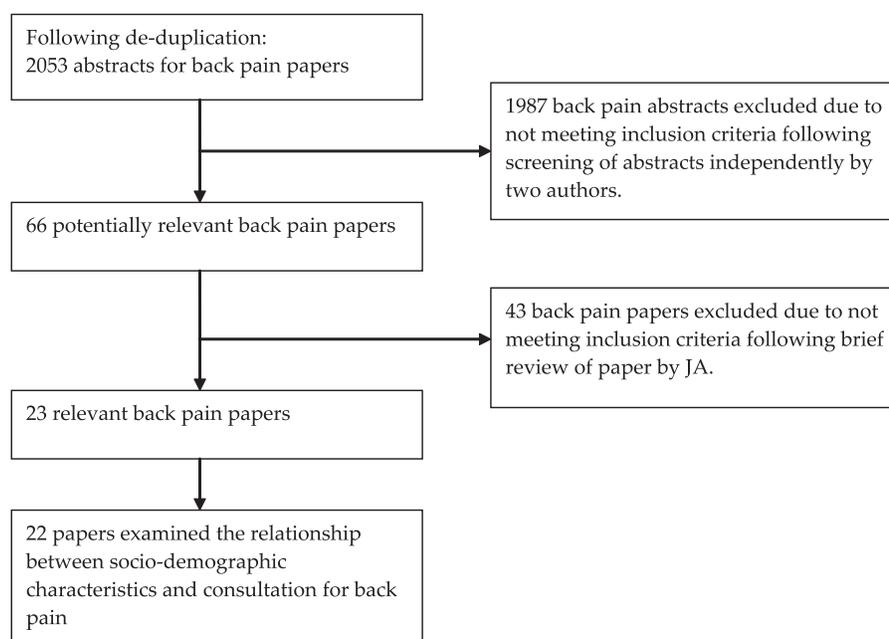


FIGURE 1 *Progress of search for relevant papers*

TABLE 1 Details of studies of consultation for back pain included in review

| Authors | Year | Country | Study type | n | Setting | Definition of back pain | Definition of help-seeking | Prevalence of consultation ^a |
|---|------|-----------------|-----------------|-------------|--------------------|--|---|---|
| Narrow definition of help-seeking: consultation with GP or doctor only | | | | | | | | |
| Biering-Sorensen ¹⁵ | 1983 | Denmark | Cross-sectional | 575 | Population sample | Had low back pain at least once | Consulted a GP at some time for low back pain | 60 |
| ^b Deyo and Tsui-Wu ¹⁶ | 1987 | USA | Cross-sectional | 1516 | Population sample | Ever had low back pain for at least 2 weeks | Consulted a GP for low back pain | 58.6 |
| Walsh <i>et al.</i> ¹⁷ | 1992 | UK | Cross-sectional | 963 | Population sample | Reported back pain in previous 12 months | Consulted GP in the previous 12 months for back pain | 40.2 |
| Wright <i>et al.</i> ¹⁸ | 1995 | UK | Cross-sectional | 8316 | Population sample | In the last 12 months have you suffered from sciatica, lumbago or recurring back pain | Visited a doctor in the last 12 months in response to sciatica, lumbago or recurring back pain | 53 |
| ^b Hillman <i>et al.</i> ¹⁹ | 1996 | UK | Cross-sectional | – | Population sample | Reported low back pain (lasting >1 day) in previous year | Consulted GP in previous 12 months for back pain | 36.7 |
| Baker <i>et al.</i> ²⁰ | 1997 | UK | Cross-sectional | 6654 | New mothers | Suffered from back ache in previous 8 months | Consulted GP for back pain in previous 8 months | 11.6 |
| Molano <i>et al.</i> ²¹ | 2001 | The Netherlands | Cross-sectional | 193 | Scaffolders | Nordic questionnaire (pain continued for at least a few hours during past 12 months) | Consulted GP for back problems in past 12 months | 44 |
| Baker <i>et al.</i> ²² | 2002 | UK | Cross-sectional | 1389 | Population sample | Had back pain in the past 2 weeks | Consulted doctor for back pain in past 2 weeks | 19.9 |
| Ijzelenberg and Burdof ²³ | 2004 | The Netherlands | Cross-sectional | 305 | Working population | Nordic questionnaire (see above) | Consulted GP in the previous 12 months for back pain | 30.5 |
| ^b Walker <i>et al.</i> ²⁴ | 2004 | Australia | Cross-sectional | 1228 | Population sample | Low back pain in previous 6 months | Consulted GP only in previous 6 months for low back pain | 5.3 |
| Picavet <i>et al.</i> ²⁵ | 2008 | The Netherlands | Cross-sectional | 1558 | Population sample | 12 month period prevalence | Consultation with GP in the previous 12 months for back pain | 30.6 |
| | | | | 986 | | Point prevalence | | 37.4 |
| | | | | 758 | | Chronic low back pain | | 38.9 |
| Broad definition of help-seeking: Consultation with any health care provider | | | | | | | | |
| ^b Deyo and Tsui-Wu ¹⁶ | 1987 | USA | Cross-sectional | 1516 | Population sample | Ever had low back pain for at least 2 weeks | Consulted a health care professional for low back pain. | 84.6 |
| Lindal and Uden ²⁶ | 1989 | Sweden | Cross-sectional | 54 | Population sample | Currently had back pain | Consulted a physician for current back pain problems | 69 |
| Von Korff <i>et al.</i> ²⁷ | 1991 | USA | Cross-sectional | 411 | Population sample | Back pain within previous 6 months | Consulted a health care provider in the previous 6 months for back pain | 26.8 |
| Carey <i>et al.</i> ²⁸ | 1995 | USA | Cross-sectional | 269 | Population sample | Chronic low back pain (functionally limited back pain for >3 months or >25 spells of back pain in previous year) | Consulted a health care provider in the previous 12 months for back pain | 73.1 |
| Szpalski <i>et al.</i> ²⁹ | 1995 | Belgium | Cross-sectional | 2660 | Population sample | History of low back pain | Visited physician or other health professional for the current or last episode of low back pain | 63 |
| Carey <i>et al.</i> ³⁰ | 1996 | USA | Cross-sectional | 485 | Population sample | Acute severe low back pain (functionally limiting back pain lasting <3 months) | Ever consulted a health care provider for back pain | 82 |
| | | | | | | | Consulted a health care provider during most recent episode of pain | 39 |

TABLE 1 *Continued*

| Authors | Year | Country | Study type | <i>n</i> | Setting | Definition of back pain | Definition of help-seeking | Prevalence of consultation ^a |
|---|------|-----------------|------------------------|-------------|--------------------------|--|---|---|
| <i>Hillman et al.</i> ¹⁹ | 1996 | UK | <i>Cross-sectional</i> | – | <i>Population sample</i> | <i>Reported low back pain (lasting more than one day) in previous year</i> | <i>Consulted health professional in previous 12 months for back pain Consulted GP in previous 12 months for back pain</i> | 48.7 36.7 |
| Waxman <i>et al.</i> ³¹ | 1998 | UK | Cross-sectional | 792 | Population sample | Ever had back pain lasting more than a day in the previous 12 months | Consulted a health care provider in the previous 12 months for back pain | 48 |
| Hurwitz and Morgenstern ³² | 1999 | USA | Cross-sectional | 4790 | Population sample | At least one back related condition (acute or chronic) | At least one visit to health care professional for back complaint during 2 week period before survey | 19.6 |
| Mortimer <i>et al.</i> ³³ | 2003 | Sweden | Case-control | 1448 | Population sample | Self-reported pain in previous 6 months (at least low disability and low pain intensity) | Consulted a health care provider in the previous 6 months for back pain | n/a |
| Ijzelenberg and Burdof ³⁴ | 2004 | The Netherlands | Cross-sectional | 252 | Working population | Nordic questionnaire (see above) | Consulted health care provider in the previous 12 months for back pain | 44.4 |
| ^b <i>Walker et al.</i> ²⁴ | 2004 | Australia | <i>Cross-sectional</i> | 1228 | <i>Population sample</i> | <i>Low back pain in previous 6 months</i> | <i>Consulted a health care provider in the previous 6 month for back pains</i> | 44.5 |
| Cote <i>et al.</i> ³⁵ | 2005 | USA | Cross-sectional | 1104 | Working population | Workers compensation claim form for work-related back pain | Consulted health care provider within 4–16 weeks of reporting the problem at work | 92 |
| Alexopoulos <i>et al.</i> ³⁶ | 2006 | Greece | Cross-sectional | 314 | Shipyards workers | Nordic questionnaire (see above) | Consulted a health care provider in the previous 12 months for back pain | 51 |
| Mannion <i>et al.</i> ³⁷ | 2006 | Switzerland | Cross-sectional | 765 | Population sample | Current lower back pain | Consultation with health care provider in the last month for back pain | 34 |

n, number of participants in the study.

^aPrevalence of consultation refers to the proportion of individuals who reported symptoms of back pain who consulted services for this pain.

^bThose studies in italics appear in the table twice as they presented more than one definition of help-seeking.

TABLE 2 Association between socio-demographic characteristics and help-seeking for back pain

| Authors | Year | Country | Age | Socio-economic position | Gender |
|--------------------------------------|------|-----------------|------------------|-------------------------|--------|
| Biering-Sorensen | 1983 | Denmark | + women = men | | = |
| Deyo and Tsui-Wu | 1987 | USA | | + | |
| Lindal and Uden | 1989 | Sweden | = | = | = |
| Von Korff <i>et al.</i> | 1991 | USA | = | | = |
| Walsh <i>et al.</i> | 1992 | UK | = | + | + |
| Carey <i>et al.</i> | 1995 | USA | = | = | = |
| Szpalski <i>et al.</i> | 1995 | Belgium | + | = | = |
| Wright <i>et al.</i> | 1995 | UK | + | | + |
| Carey <i>et al.</i> | 1996 | USA | = | = | = |
| Baker <i>et al.</i> | 1997 | UK | | = | |
| Waxman <i>et al.</i> | 1998 | UK | = | + | = |
| Hurwitz and Morgenstern | 1999 | USA | | = | |
| Molano <i>et al.</i> | 2001 | The Netherlands | = | = | |
| Baker <i>et al.</i> | 2002 | UK | = | = | |
| Mortimer <i>et al.</i> | 2003 | Sweden | | = | |
| Ijzelenberg and Burdof ²³ | 2004 | The Netherlands | | = | = |
| Ijzelenberg and Burdof ³⁴ | 2004 | The Netherlands | = | = | = |
| Walker <i>et al.</i> | 2004 | Australia | | | + |
| Cote <i>et al.</i> | 2005 | USA | = | = | + |
| Alexopoulos <i>et al.</i> | 2006 | Greece | = | = | = |
| Mannion <i>et al.</i> | 2006 | Switzerland | + | | + |
| Picavet <i>et al.</i> | 2008 | The Netherlands | | (+) | |

The plus sign indicates positive association between socio-demographic characteristic and help-seeking (for age, older people are more likely to consult than younger people; for gender, women are more likely to consult than men and for socio-economic position, more deprived people are more likely to consult than less deprived). 'Equal to' indicates equivocal relationship between socio-demographic characteristic and help-seeking; parentheses indicate not tested for statistical significance.

help-seeking for back pain. Table 1 provides details of the included studies, including a description of the definitions of back pain and of consulting. These descriptions reveal considerable heterogeneity between studies in definitions of both back pain and consulting. The papers almost exclusively used cross-sectional analysis of survey data, with the exception of one case-control study.

Definition of consultation and consultation 'rates'

Definitions of consultation were inconsistent and varied both by type of service provider and by time period considered. Most commonly studies described consultation with any service provider. While this varied across studies, it generally included primary and secondary care resources (including specialist services) and in some cases included complementary and alternative resources (particularly chiropractors). Fewer

papers referred solely to primary care ($n = 6$). Some utilized both overall use (with any provider) in addition to describing use of the services of specific professional groups ($n = 3$). Most papers imposed a time frame within their definition of help-seeking (most commonly the previous 12 months); however, definitions ranged from ever having consulted for the symptoms to consultation within the previous week. Rates of consultation were very varied across the studies, ranging from 5.3% of participants stating they had consulted for back pain to 84.6%.

Twenty-two papers explored whether age, socio-economic position or gender was associated with consultation for back pain. Summary results are presented in Table 2.

Age

Of the 15 studies that considered the relationship between age and help-seeking for back pain, the majority did not find strong evidence to support an association between these two factors. Of the four studies that did observe an association between age and consultation, three indicated a positive relationship, suggesting that older people were more likely to consult for back pain; in the remaining study, this relationship between older age and higher consultation rates was only seen among women.

Socio-economic characteristics

The review did not identify any strong evidence to support the assertion that socio-economic position is a predictor of consultation for back pain. Several different measures of socio-economic position (the most common of which was educational attainment) were utilized in the 17 studies that reported on socio-economic position. Thirteen studies suggested an equivocal relationship. All the four remaining studies suggested that people from more deprived backgrounds were more likely to consult for back pain (although only three of these studies tested for statistical significance of this association).

Gender

Fifteen studies included gender as a variable in their analyses, and the majority ($n = 10$) indicated that there was no association between help-seeking for back pain. The five studies which did report an association reported that women were more likely to seek help than men.

Discussion

Summary of main findings

We identified papers that examined health care consultation for back pain that included both consulters and non-consulters. The findings from this review would suggest that there is no consistent evidence for an association between gender, socio-economic position or age

and consultation for back pain. This is contrary to commonly held assumptions among practitioners and policy makers about the socio-demographic characteristics associated with consultation behaviour.

While the term 'consultation' is used frequently, it is not necessarily a straightforward concept. The definitions encountered in the studies included in this review encompassed, to varying degrees, contact with primary and secondary care and access to informal support such as self-care strategies, complementary therapies and pharmacy. Within the literature reviewed here, and in the wider literature, the lack of formal attempts to standardize the definition of consultation creates difficulties when attempting to compare findings across studies.

Strengths and limitations of the study

It is important to note the methodological limitations of the studies included in this review. We deliberately set the inclusion criteria to include studies that were based on individuals who experienced back pain who either did or did not consult formal services for these symptoms. This was to enable us to examine consultation patterns while taking into account health need. As a result, the studies included in this review are based, for the most part, on cross-sectional analysis of survey data. While symptom measurement does tend to be based on standardized tools (most commonly the Nordic questionnaire),³⁹ outcome measurement is not. Differing timescales over which help-seeking is measured are likely to have led to variation in the extent of recall bias. Most importantly for the conclusions from this review is whether recall bias is likely to be systematically different across socio-demographic groups; however, it is difficult to predict whether this would lead to systematic overestimation or underestimation of health service usage. Differences in help-seeking across socio-demographic characteristics may have been masked in some studies through the combination of service types (e.g. primary, specialist care and complementary and alternative medicine) in some studies' definition of consulting, as these might have different predictors. Given the methodological design across studies was relatively homogenous, using specified quality criteria would have rated all the studies very similarly, it was therefore deemed unnecessary.

Given the heterogeneity across the studies included in this review, we did not conduct a formal meta-analysis. We feel this would have projected a false sense of precision onto the data available (given the nature and quality of the primary studies).

The aim for many of the papers included in this review was to identify a range of factors that influenced consultation for back pain, so the socio-demographic characteristics examined was most often just one of several variables studied in the paper (these often

included symptom variables, psychological variables and social relationships). Therefore, it is unlikely that we uncovered papers that were published due to their showing evidence for an association between socio-demographic characteristics and consultation. Many of the papers in this review were based on data that were largely opportunistic in nature. For example, many of the studies have addressed questions of care-seeking as secondary to prevalence studies of back pain and were never designed to specifically address issues of consultation—hence relying on a single question about consultation within a large questionnaire.

The analysis presented here is based on crude vote counting techniques. Vote counting has been criticized as it takes no account of the differential weight of each study and has potential problems associated with using subjective decisions or statistical significance to define a positive or negative relationship between the intervention and the outcome.⁴⁰ It is possible that the use of arbitrary cut points (although conventional 95% significance levels are used in most cases) for determining whether there was a positive, a negative or no association may mask group differences if individual studies were not sufficiently powered; none of the studies mentioned the issue of power or provided sample size calculations. However, most of the criticism of vote counting has been in the context of systematic reviews of intervention studies, when such information could be incorrectly used to infer the effectiveness of a particular treatment. The studies included in this review were epidemiological in nature and the aim of the vote count in this instance was not to provide a definitive account of what 'causes' individuals to consult. Rather, our aim was to facilitate an overview of the current knowledge base in relation to potential socio-demographic predictors for consultation for back pain. It is appropriate to use vote counting to address this more simple question of whether there is any evidence of an effect.³⁸ However, this does highlight the importance of authors providing full tables of numerical data relating to the study, which in this case were often lacking, in order to allow for more sophisticated meta-analytical techniques.

Given the 'opportunistic' nature of the data collection used in most of the studies in this review, little attention was paid to theoretical conceptions of consultation behaviour and rarely gave clear accounts of the reasons for examining the impact of socio-demographic factors on consultation for back pain. Such limitations reflect a largely atheoretical epidemiological approach.

There are large literatures on consultation for symptoms of heart disease and cancer, often focussed around concerns about patient 'delay' in alerting medical practitioners to potentially serious conditions.⁴¹ As the size of the literature on consultation patterns is so vast, any attempt to describe this body of work

has to be set within firm limitations. Here we have selected a single condition—back pain as an ‘exemplar’ for examining the literature on associations between socio-demographic characteristics and consultation to test whether widespread assumptions about the characteristics of ‘consulters’ and ‘non-consulters’ are well founded.

Comparison with existing literature

The social science, and predominantly qualitative approach, to describing consultation has focussed on the production of theoretical models of illness behaviour. While these vary across social science disciplines and there remains disagreement and debate over the merits of each model, in general, they tend to describe consultation as a dynamic process in which individual characteristics, placed strongly within a social context, determine the experience of symptoms and how these are acted upon.^{42–44} In a recent review, Dixon-Woods *et al.*¹² usefully deconstruct ‘consultation’ into various processes including the recognition and response to symptoms, readiness to consult and delays or impediments to recognizing or acting on one’s perceived candidacy for health service use. All these factors may be differentially influenced by various socio-demographic characteristics and may lead to difficulty observing consistent patterns of consultation across these groups. This is linked to Mechanic’s⁴⁵ distinction between ‘cross-sectional’ versus ‘processual studies’:

In theory people with identical symptoms might behave differently depending on what is going on in their lives and on situational factors, and this cannot be captured through cross-sectional study (p. 393).

Mechanic argues that determinants of consultation cannot simply be abstracted through general descriptors of the person involved or their environment, supporting this with evidence relating to the small amount of variance explained in large multi-variable models of health care consultation, even when a large number of predictor variables are used. This may explain the lack of associations we have observed in this review. On the one hand, the review illustrates the need for well designed empirical studies to ascertain whether there are in fact socio-demographic differences in consultation with formal health services and, in particular, to develop consensus on the definition of ‘consultation’. Given that much of the interest in the social patterning of health care utilization comes from a desire for equity in access, it is in the very least important to differentiate between type of health care provider in future studies. This allows us to attempt to disentangle where in the process of health care utilization any inequity may occur—in an individuals’ desire to consult, compared to structural barriers relating to the need for referral or health care payment system.

However, it remains equally important to consider how macroinfluences, including socio-demographic characteristics, interact with the microsocial contexts within which individuals operate. It is less obvious how this can be achieved empirically and will require the utilization and further development of methodological techniques that will enable the integration of data derived from quantitative and qualitative methods.

Implications for clinical practice

In conclusion, we are aware of the widely held assumptions relating to the impact of socio-demographic characteristics on consultation for common symptoms within the community. However, the commonly held view that age, gender and socio-economic position are likely to impact on differential consultation rates is not well supported in studies of consultation for back pain. Because these assumptions ultimately affect patient care, it is important they do not go unchallenged. Dispelling popular myths (if appropriate) will prevent stereotyping that may lead to less effective clinical practice and so enhance health care delivery.

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Declaration

Conflict of interest: none.

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APPENDIX 1 Medline (Ovid) search strategy

| No. | Search history |
|-----|--|
| 1 | 'Patient acceptance of health care'/ |
| 2 | Health services/ut |
| 3 | Attitude to health/ |
| 4 | Health behavior/ |
| 5 | Health knowledge, attitudes, practice/ |
| 6 | Communication barriers/ |
| 7 | Professional–patient relations/ |
| 8 | Physician–patient relations/ |
| 9 | 'Health services needs and demand'/ |
| 10 | Health services accessibility/ |
| 11 | or/1–10 |
| 12 | exp back pain/ |
| 13 | (Backache\$ or back ache\$).ti,ab. |
| 14 | Back pain\$.ti,ab. |
| 15 | Vertebrogenic pain syndrome.ti,ab. |
| 16 | or/12–15 |
| 17 | 11 and 16 |
| 18 | Limit 17 to English language |