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TITLE

Patient satisfaction with medication consultations and medicines information provided by nurses working autonomously in sexual health services: A questionnaire study

ABSTRACT

Aim: To compare the satisfaction of patients managed by independent nurse prescribers with that of patients managed by nurses using PGDs with respect to experience of the consultation and information received about the medication

Design: Survey

Methods: Patients receiving medications from nurses in five urban sexual health services in the United Kingdom completed validated questionnaires immediately after the consultation, September 2015–August 2016. Scores of independent nurse prescribers and nurses using patient group directions were compared regarding consultation experience (5 items) Satisfaction with Information about Medicines (SIMS 16 items scale).

Results: Of 808 patients receiving medications, 393 (48.6%) received questionnaires and 380 were returned (independent nurse prescribers 180 of 198, 90.9%; patient group directions 173 of 195, 88.7%). Patients in both groups reported high levels of satisfaction. Regarding the consultation experience, patients found nurses friendly/ approachable (>99%), instilling confidence and trust (>99%) and explaining reasons for medications clearly (97%). Satisfaction with medication information: Of 348 (92%) respondents completing SIMS, the overall mean score was 13.4 of maximum 16 (no difference between groups, t-test, p=0.63).

Conclusions: Patients were highly satisfied with nurse consultations and information around medications regardless of whether they were managed by independent nurse prescribers or nurses using patient group directions.

Impact: Findings provide evidence in support of autonomous provision of medications by nurses in sexual health clinics.

Keywords

- Patient experience
- Patient satisfaction
- Medicines information
- Nurse/ non-medical prescribing
- Sexual health
- Patient group directions/ medication directives

What this paper adds:

- Patients autonomously managed by sexual health nurses report high levels of satisfaction with their medication consultations and with the level of information provided about their medications, regardless of whether they were managed by a nurse prescriber or a patient group direction user
- This is the first known study to explore patient experience of nurse-provided medications in sexual health and the first to explore to such depth on the use of patient group directions.

INTRODUCTION

An increasing number of countries worldwide are introducing the ability for nurses to independently provide medications without a medical doctor's prescription. However, the autonomy nurses have with regards to the provision of medicines for patients vary internationally (Kroezen et al., 2011; Gielen et al., 2014). Registered nurses in the United Kingdom (UK) can provide medicines to patients either via independent prescribing or patient group directions. Independent nurse prescribing and use of patient group directions were introduced in the UK National Health Service (NHS) to enable nurses to prescribe and facilitate patient access to medicines (UK Department of Health, 2006a). Although previous studies have shown nurse prescribing is acceptable to patients, none have been set in sexual health clinics or investigated differences between nurse prescribing and patient group direction use.

BACKGROUND

Nurses with authority to independently prescribe, have at least one year's post registration practice and have completed a prescribing training course (typically 6 months in length) (UK Nursing and Midwifery Council (NMC), 2018). This contrasts with some countries (e.g. the USA, Canada and Australia), where training to prescribe, also available to registered nurses, is at master's degree level and is a component of the advanced nurse practitioner programme, usually two years in duration (Ball et al., 2009). Independent nurse prescribers, like doctors, are responsible for the assessment, diagnosis and decisions about the clinical management required in patients with diagnosed or undiagnosed conditions (UK Department of Health, 2006a; The Human Medicines Regulations 2012 (SI 2012/1916); NMC, 2006). By contrast, patient group directions are medication directions determined by local services that set out pre-defined drugs and clinical scenarios in which healthcare professionals can supply and/ or administer medication. Patient group directions/ medication directives are used in Australia, Canada and the UK (Kroezen et al., 2011). In contrast to independent nurse prescribing, patient group directions can be used by large groups of clinical staff following competency-based training. Patient group directions are restrictive in clinical application (National Institute for Health and Care Excellence, 2013), whilst independent nurse prescribing is comprehensive and flexible.

Previous studies in various settings (dermatology (Courtenay et al., 2009a; Courtenay et al., 2011), diabetes (Courtenay et al., 2009b; Courtenay et al., 2010; Wilkinson et al., 2014), general practice (Dhalivaal, 2011; Tinelli et al., 2013), hypertension (Hobson et al., 2010; Jones et al., 2010), maternity/ children services (Drennan et al., 2011), mental health (McCann and Clarke, 2008; Earle et al., 2011; Ross et al., 2014), oncology (Hobson et al., 2010) and renal medicine (Jones et al., 2010)) have focussed on independent nurse prescribing, mostly indicating that patients are very satisfied with nurses' medication consultations. While literature reviewed from Australia (McCann and Clarke, 2008), Israel (Natan et al., 2013), Ireland (Drennan et al., 2011), New Zealand (Wilkinson et al., 2014) and the UK (Latter et al., 2007; Courtenay et al., 2009a; Courtenay et al., 2010, Hobson et al., 2010; Courtenay et al., 2011; Earle et al., 2011; Banicek, 2012; Mac Lure et al., 2013; Tinelli et al., 2013), has identified that although patients/ public are generally supportive of nurses providing medication, patients do have some concerns, these concerns being more evident in studies that have explored patients' perceptions, as opposed to studies that have explored patient experience. These concerns focus upon the depth of nurses' knowledge on medications (Hobson et al., 2010), nurses' ability to manage newly diagnosed conditions and treatment regimens (Courtenay et al., 2010; Courtenay et al., 2017), and the adequacy of nurses training (Courtenay et al., 2010; Hobson et al., 2010; Dhalivall, 2011; Tinelli et al., 2013; Wilkinson et al., 2014).

To our knowledge, no studies have specifically explored patient's experience of patient group directions, and there is no evidence of patients' experiences of independent nurse prescribing in sexual health, a setting in which nurses traditionally deliver autonomous care involving contraceptive and screening/ management of sexually transmitted infections and HIV.

THE STUDY

Aim

The aim of the study was to compare the satisfaction of patients managed by independent nurse prescribers with that of patients managed by nurses using PGDs with respect to experience of the consultation and information received about the medication

Design

This study involved a cross-sectional questionnaire survey.

Participants

Five urban, tertiary-level sexual health ambulatory services in the UK, each employing independent nurse prescribers and/ or nurses who supplied or administered medicines using patient group directions, participated in the study. Across these sites, 17 independent nurse prescribers and 19 patient group direction users completed a clinical diary for two weeks in which they recorded consultations involving medications. At the end of these consultations, nurses invited their patients to anonymously complete a questionnaire. Patients were eligible to take part if they were over 16 years of age and spoke English or Welsh. They were excluded if they were primarily managed by another staff member, disclosed a potential vulnerability during the consultation (e.g. safeguarding or sexual assault concerns), or did not receive medication.

Data collection

The questionnaire comprised two sections: (i) five questions from a validated instrument (Weston et al., 2010) exploring patients' experience, confidence and opinion on nurses independently managing their care (see Table 1). Section (ii) 16-items from the validated Satisfaction with Information about Medicines Scale (SIMS) which was designed to assess patients' satisfaction with the medication information received covers information on medications, managing side effects, interactions with alcohol and potential drowsiness implications. The SIMS tool scoring involved three stages (Horne et al., 2001): (i) a judgement of whether medication information was appropriate, lacking or excessive, (ii) grouping satisfaction with information reported as 'about right' or 'not applicable' (score=1), and information deemed 'too much', 'too little' or 'not received' (score=0), to give a total score of 0 (worst) to 16 (highest), and (iii) splitting the scale into satisfaction relating to "action and usage of medication" (items 1-8, covering medication name, how to take it, how much and when) and "potential problems with medication" (items 9-16, covering what to do if a dose is forgotten, potential side effects, what to do if side effects are experienced, and concurrent use of other medications).

Data were collected between September 2015 and December 2016. Data on patient demographics were not collected.

Ethical considerations

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee Wales Research Ethics Committee 4 (REC reference 15/WA/0120) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Nurses and patients were provided with information leaflets explaining

that participation was voluntary. Patients completed the questionnaire away from the nurse, in the waiting room after their consultation was completed, returning it to a designated box in reception prior to leaving the clinic. Implied consent was obtained from patients who returned questionnaires.

Data analysis

Data from the questionnaires were entered into IBM SPSS Version 24 (IBM Corp., 2016) and analysed descriptively. Questionnaires were labelled as either applying to independent nurse prescribing or patient group directions, as appropriate, before they were provided to nurses for distribution so that patient responses could be linked to the correct type of consultation.

Questions exploring patients' experience with their medication consultations were analysed descriptively using numbers and percentages for each pre-determined response option by group were presented. Due to the similarity in responses between patients managed by nurse prescribers and patient group direction users, the Fisher's Exact test was used to test differences between nurse prescribers and patient group direction users where expected cell values were less than 5, the chi-squared test was used when all cell values were >5 .

Mean SIMS scores were compared for statistical difference between independent nurse prescribers and patient group direction users using an independent samples t-test.

Validity, reliability and rigour

Both instruments included in the questionnaire were considered by the research team to have face validity for the study. The experience questionnaire was specifically designed using the Delphi technique to capture patient experience in sexual health services. Questions related to the consultation experience were used in this study; those exploring broader access and follow-up issues were not relevant. The authors of the SIMS tool reported good levels of internal consistency (Cronbach's alpha coefficient 0.81-0.91), test-retest reliability (Pearson correlations 0.67-0.76, $p<0.05$) and ease of use (Horne et al., 2001). One of the 17 SIMS items (Question 8: How to use your medicine) was inadvertently omitted when questionnaires were printed.

RESULTS

Response rate

Of 808 patients recorded in clinical diaries who received medication from nurses, 393 (48.6%) were issued with a questionnaire. Nurses offered reasons for not distributing a questionnaire for 140 patients (60 not eligible, 54 declined, 26 'nurse forgot'). Of the 393 questionnaires distributed, 360 (91.6%) were returned completed (independent nurse prescribers 180 of 198 (90.9%), patient group directions 173 of 195 (88.7%), 7 unknown).

Patients' experience of the consultation

Patients' experience with nurses' medication consultations was over 95% positive for both independent nurse prescribing and patient group direction users across all questions posed. Respondents were particularly satisfied with regards to nurses being friendly and approachable ($n=359$, 99.7%) and nurses being able to instil confidence and trust to their patients ($n=357$, 99.2%), see Table 1. There was, however, a general lack of awareness by patients around the autonomous nature of nurse delivering medications for both independent nurse prescribers and patient group direction users). There were no statistical differences found between nurse prescribers and patient group direction users with regards to patients' experience of their consultations, see Table 1. Over 25% stated they did not know if a doctor had been involved in the prescribing decision.

Satisfaction with Information about Medicines Scale

A total of 380 questionnaires were returned, of these the SIMS was fully or partially completed by 348 (91.6%) respondents. No difference was found with regards to patients' satisfaction with information between independent nurse prescribers and patient group direction users (approximately 84% satisfaction for both). The highest scoring categories were 'About right' (n=4,108, 73.8%) and 'not applicable' (n=526, 9.4%). Where nurses were scored 'negatively' this was usually because they provided 'too much' information (n=410, 7.4%), rather than not enough, see Table 2. There was slightly less patient satisfaction identified with regards to information about the 'potential problems' with medications (mean score 6.4 out of 8, t-test, p=0.98) compared to information relating to the action and usage of medicines (mean score 7.0 out of 8, t-test, p=0.34), but there were no statistically significant differences between independent nurse prescribers and patient group direction users overall (mean score 13.4 out of 16, t-test, p=0.63), see Table 3. Items with highest levels of dissatisfaction related to information on alcohol consumption (92 of 348; 26.4%), potential of drowsiness (85; 24.4%), and management of side effects (70; 20.1%).

DISCUSSION

Patients reported extremely high level of positive experiences with their medication consultations, with no differences found between patients of independent nurse prescribers and patient group direction users on either experience with the consultations or satisfaction with information about medications. Therefore, despite the clear differences in independent nurse prescribing and patient group direction training and governance, this did not affect patients' experience or satisfaction during their medication consultations. Patients clearly valued nurses' approachability, had confidence in their clinical management, were highly satisfied with medication explanations, and were given opportunities to ask questions.

Positive patient feedback is a consistent finding in the general nurse prescribing literature (Drennan et al., 2011; Stenner et al., 2011; Bergman et al., 2013; Tinelli et al., 2013; Courtenay et al., 2017), as is patients' confidence in nurses' consultation skills and medication knowledge (Courtenay et al., 2010; Dhalivaal, 2011; Banicek, 2012; Bergman et al., 2013; Ross et al., 2014; Courtenay et al., 2015). Our study has identified that patients attending sexual health services and managed by nurses, in line with other clinical specialities, are highly satisfied with nurses autonomously providing medications. Moreover, this was the first investigation known to explore patients' experience and satisfaction with medication consultations using validated research tools for nurse prescribing in sexual health and the only one to measure patient satisfaction with patient group direction users. As both independent nurse prescribing and patient group directions are already fully integrated within sexual health (Black, 2012; Black et al., 2021) it is reassuring patients' value nurses' medication knowledge and skills. Nevertheless, more than half of these patients were unaware that their nurse independently provided their medications. This aligns with findings of others (Mac Lure et al., 2013) and highlights the need to promote more widely to the public the role nurses play in medicines management.

Others have suggested that prescribers inadvertently focus on medication usage, rather than the associated risks, in order to encourage adherence by avoiding mentioning the negative aspects of medications (Latter et al., 2007). This is consistent with the slightly lower satisfaction of patients in our study with information on potential problems from medications, compared to satisfaction with information on action and usage. This study identified some dissatisfaction with information related to alcohol consumption, drowsiness, and side effects. However, as many sexual health related drugs are unlikely to be affected by moderate alcohol use, or cause drowsiness (BNF, 2016; British Association of Sexual Health & HIV, 2016; Faculty of Sexual & Reproductive Health, 2016), nurses may have

been less inclined to routinely discuss these. Nevertheless, nurses need to be aware that additional information in these areas may be indicated but be cautious not to provide too much.

Limitations

A limitation of this study is that patients were nurse-selected for inclusion, potentially introducing a distribution bias (Latter, 2011). A wider spread of patient preferences, experience, satisfaction and attitudes was found in a study using a mailed questionnaire (Tinelli et al., 2013). Nevertheless, recruiting patients in our study was a pragmatic decision reflecting availability of research resources and to ensure that patients fulfilled inclusion criteria. Moreover, questionnaires offer a useful way to achieve high volumes of structured patient feedback on their experiences of using services. The study was further limited as it did not collect patient demographics or data that would enable investigation into factors associated with patient experience or satisfaction; this should be considered as part of a future study. The study only used part of the patient experience questionnaire which may have affected its overall validity; other aspects of it were not related to the consultation and thus not relevant. One question was inadvertently omitted from the SIMS questionnaire but we do not believe this affected the outcome since items are individually scored.

While this study was limited to sexual health services in the UK, when considered with the nurse prescribing literature that has been undertaken across the various settings such as dermatology (Courtenay et al., 2009a; Courtenay et al., 2011), diabetes (Courtenay et al., 2009b; Courtenay et al., 2010; Wilkinson et al., 2014), general practice (Dhalivaal, 2011; Tinelli et al., 2013), hypertension (Hobson et al., 2010; Jones et al., 2010), maternity/ children services (Drennan et al., 2011), mental health (McCann and Clarke, 2008; Earle et al., 2011; Ross et al., 2014), oncology (Hobson et al., 2010) and renal medicine (Jones et al., 2010), it provides further support that patients are very positive and confident in nurses' abilities to provide medication. This is reassuring given that the role of UK nurses is well established with regards to medicines provision. As well as help to reassure patients about the ability of nurses to deliver medicines, it also provides reassurances to global policymakers who are looking to expand prescribing authorities in their own country and services.

CONCLUSION

Patients attending UK sexual health services were highly satisfied with their experiences of nurses' medication consultations and satisfied with information given about their medication, regardless of whether they were managed by an independent nurse prescriber or patient group direction user. Patients were often unaware that nurses independently provided the medication, but those who were aware were confident in the nurses' ability to do so. High patient confidence in both independent nurse prescribing and patient group directions has potential implications for policy makers looking to identify the most appropriate method of medicines provision to introduce within their own services or countries.

Practice implications

Nurses' ability to provide medication is well established in the UK NHS. Positive patient feedback from sexual health clinics underpins this policy and provides supporting evidence for other health care systems that may be considering expanding prescribing authority beyond medical professionals to meet staffing shortages and improve patient access to medication.

ANONYMISED CONFLICT OF INTEREST STATEMENT

All authors declare that they have no conflict of interest.

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