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The need to improve the interface between in-hours and out-of-hours GP care, and between out-of-hours care and self-care

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Background. Considerable changes have occurred over the last 5 years in the organization of out-of-hours care in the UK. Users’ experiences of their care are an important part of ‘quality of care’ and are valuable for identifying areas for improvement.

Aim. To identify strengths and weaknesses of out-of-hours service provision in Wales. The design of the study is a cross-sectional survey. The setting of the study is nine GP services, three Accident and Emergency units and NHS Direct in Wales.

Method. Survey using the validated Out-of-Hours questionnaire. We identified the four most and least favourably rated items regarding users’ experience of care. These were analysed by type of care provided, telephone advice, treatment centre and home visit groups.

Results. Eight hundred and fifty-five of 3250 users responded (26% response rate). Across providers and types of care, consistent strengths were the ‘manner of treatment by call operator’ and the ‘explanation of the next step by call operator’. Consistent weaknesses were the ‘speed of call back by the clinician’, the ‘information provided by the GP’, ‘getting medication after the consultation’ and ‘when to contact the (in-hours) GP’.

Conclusions. Users of out-of-hours care identify clear and consistent strengths and weaknesses of service provision across Wales. Specific areas for improvement concern the interface between in-hours care and out-of-hours care and between out-of-hours care and self-care. GP surgeries need to give better information on how to access the out-of-hours services. Out-of-hours providers should improve their advice on how and when to access in-hours surgeries and also improve the availability of medicines after out-of-hours consultations.

Keywords. Out-of-hours care, patient experience, primary care, quality of care, survey.

Introduction

The provision of out-of-hours care in the UK has undergone major changes during the past decade. There has been a shift from a model where GPs were responsible for their patients’ out-of-hours care and either provided it themselves, worked collectively with local colleagues in GP cooperatives or directly contracted out the care to private providers. Now GPs can ‘opt out’ of 24-hour responsibility and this is passed to the Local Health Board in Wales (equivalent to Primary Care Trusts in England) who may provide it directly or agree contracts with GP cooperatives, NHS hospitals (‘Trusts’) or private health care providers.

These changes have had a major impact on patients’ perceptions of quality, including safety and convenience to meet needs, satisfaction, effectiveness and enablement to cope with their illness or condition. These are likely to affect consequent use of out-of-hours care during the current or future illness...
episodes. Users’ views and involvement are now recognized as being important for developing effective health care.\(^2\) In addition, National Quality requirements have been set for out-of-hours providers by the UK Department of Health.\(^3\)–\(^5\)

As far as we are aware, there have been no large published surveys of users’ views on a range of providers (public and private sector, GP and Accident and Emergency etc., see below) of out-of-hours care across a large and varied geographical area. We present here findings from a cross-sectional observational survey of user experiences as part of a larger study of out-of-hours care in Wales. This builds upon our previous work looking at the provision of out-of-hours care in one particular area of Wales.\(^6\) The aim of this study was to identify strengths and weaknesses of provision to enable improvements in care.

Method

Sampling

We approached all 13 providers of general practice out-of-hours care in Wales (GP OOH Providers). These comprise a range of types of provider, including ‘traditional’ GP cooperative models, hospital (‘Trust’)-managed services and for-profit companies. In addition, we approached three Accident and Emergency Departments (NHS A&E centres) that also acted as out-of-hours primary care treatment centres. These were chosen to cover an urban area (Swansea), a mixed area (Gwent) and a rural area (Conwy and Denbighshire). We also included NHS Direct (Wales), which provides an out-of-hours telephone advice service throughout Wales.

Out-of-hours services were asked to identify users of their services during the previous 2–4 weeks from their clinical information system. They excluded patients who had died, patients known to be terminally ill, those aged between 11 and 15 years (for confidentiality reasons) and those known to be unable to participate in surveys. To control for case mix, at least to some degree, the highest emergency categories were excluded in the groups attending the NHS A&E centres.\(^7\) For providers who deliver telephone advice, treatment centre care and home visits (the GP OOH Providers), a random sample of 250 users was chosen between November 2007 and June 2008. We followed usual practice in administering this questionnaire and surveyed 100 who had telephone advice, 90 who had attended a treatment centre and 60 who had a home visit.\(^7\) For providers only providing treatment centre care (NHS A&E centres) or only providing telephone advice (NHS Direct), a random sample of 250 service users was chosen. Patients who attended NHS A&E centres were not required to telephone the centre in advance and instead could simply attend the centre.

Instrument

We used a validated postal questionnaire, the Out-of-Hours Questionnaire, which has been developed in the UK to seek users’ views on individual out-of-hours providers.\(^7\) It is closely related to the Improving Practice Questionnaire (IPQ),\(^8\) which is also widely used in the UK to seek users’ views on the in-hours care provided by GPs.\(^9\) We modified the questionnaire for each type of user care provided—telephone advice, treatment centre visits and home visits.

The questionnaire comprises a maximum of 56 items. Of these, 28 items focus on the user’s view and experience of the care received. These are organized into five sections: ‘initial telephone contact’ covering users initial contact by telephone with the service (six items); ‘the speed of the call back by the clinician’ (one item); ‘visiting the treatment centre or emergency unit’ covering the practical aspects of the visit to the centre (six items); the ‘care provided’ covering users’ views of their consultations either over the telephone or over the face to face (12 items) and finally ‘after the consultation’ covering users’ views on getting medication and what they were advised to do if they got worse (three items). The six items covering ‘visiting the treatment centre or emergency unit’ were omitted for those patients receiving telephone advice or home visits. Five-point Likert type scales are used for users’ responses. Scores for individual items within sections were inspected. Total scores are calculated by adding across the items and then converting into a percentage of the maximum score for that particular questionnaire. An overall satisfaction rating is also given by the user.

Other descriptive data were also captured regarding accessing the service, length of consultation, travelling and waiting times. These are presented to portray the context of actual provision, within which the user’s ratings of strengths and weaknesses should be interpreted.

The questionnaire also includes items for demographic details and patient enablement.\(^10\) Users were also asked to write free text comments about how the service could be improved and how the particular clinician (doctor/nurse/paramedic) could improve. These other data are published elsewhere along with the results of our interviews with users of the out-of-hours service.\(^11\)

Administration

Information about the study with invitations to participate and the questionnaires were mailed to the selected individuals by the providers with a return stamped addressed envelope. For users aged ≤10 years, invitations to participate were sent to their
parents or guardians. A single reminder was sent after 2 weeks. Questionnaires were returned by respondents to an external agency [Client Focused Evaluation Programme (CFEP), Exeter] for data processing and initial analysis.

**Analysis**

The initial data analysis was carried out by CFEP and showed users’ ratings of each of the individual aspects of their care in the questionnaire ranked by score. We adapted the method used in the UK Quality and Outcomes Framework Activity\(^8\) for GPs who use the IPQ.\(^8\) Surveyed GPs are asked to reflect on their four most favourably and the four least favourably rated items in the IPQ. We adapted this to identify the ‘strengths’ (the four most favourably rated items) and ‘weaknesses’ (the four least favourably rated items) across each service. We adopted this approach as we sought a more qualitative identification of strengths and weaknesses rather than a quantitative comparison of scores of particular providers on individual questionnaire items. This was because we anticipated a relatively low response rate,\(^12\) with small numbers in subgroups, and we considered it likely that users in different localities could give generally more positive or negative ratings (higher or lower scores) of their care reflecting local influences (socio-economic, educational and other demographic variations). We considered that any individual item could be rated a strength or weakness of a provider ‘by chance’; however, where items were consistently rated highly or lowly across providers, it would indicate areas that need particular attention.

Using this approach, a user evaluation matrix was developed for each type of care (telephone advice, treatment centre and home visits) across providers, categorizing the items as in the original questionnaires into initial telephone contact, the speed of call back by the clinician, visiting the treatment centre (where applicable), the care provided and post-consultation. The intention was to examine if patterns were consistent across different provider sites and types. In the matrices, we also present the total scores on the questionnaires for each provider and the range for the strengths and weaknesses, as a general guide to the ratings achieved by providers, but not for individual items as group sizes were small.

**Results**

Nine out of 13 GP OOH providers (who provide all three types of care), the three NHS A&E centres that only provide treatment centre care and NHS Direct (Wales), which only provides telephone advice agreed to participate. For the geographical coverage achieved, see Figure 1.

Through these centres, 3250 service users were invited to take part in the survey (1150 receiving telephone advice, 1560 attending treatment centres and 540 receiving home visits). Eight hundred and fifty-five users returned questionnaires giving an overall response rate of 26% (range across providers 14–41%, response rate for telephone advice 25%, for treatment centres 25% and for home visits 33%); 42% were male and the mean age was 38 years. With regard to the type of care provided, 293 users receiving telephone advice, 383 attending treatment centres and 179 receiving home visits responded.

**User evaluation matrices**

User evaluation matrices were developed identifying the four most favourably rated and the four least favourably rated questionnaire items per service provider. The dots represent the most favourably rated items and the crosses represent the least favourably rated items. The last two columns show the ranges for these ratings.

**Telephone advice**

Among the users who received telephone advice, there is a clear pattern of items, which received consistently positive and consistently negative ratings across providers (see Fig. 2). The initial telephone contact was generally rated positively by users with ‘the manner of treatment by the call operator’ identified as a strength for all providers and ‘explanation of next step by call operator’ rated as a strength for 7 of the 10 providers. However, information provided by the GP, that is the instructions provided by general practices to users as to how to contact the out-of-hours...
service, was rated as a weakness for 7 of the 10 providers. In addition, ‘speed of call back by clinician’ was rated as a weakness across all providers.

With regard to the users’ views on the care provided, there were more items identified as strengths than weaknesses. ‘Respect shown to you’ was rated as a strength for six providers and ‘reassurance’ was rated as a weakness for five providers. With regard to the patients’ ratings for ‘post-consultation’, the patients identified consistent areas of weakness. ‘Ease of getting medications’ was rated as a weakness for nine providers and ‘advice on when to contact own GP’ was rated a weakness for four providers.

Treatment centres
As with the telephone advice, there were consistently good ratings across providers for initial telephone contact with again the ‘manner of treatment by call operator’ positively rated for eight of the nine relevant providers, ‘explanation of next steps’ positively rated for seven providers and ‘ease of contact of OOH’ positively rated for six providers (see Fig. 3). Speed of call back by clinician was less negatively rated here than by the patients receiving telephone advice.

This group of users provided evaluations of their visits to the treatment centres. ‘Travel time’ was rated most negatively (7 of 12 providers); however, there were no other consistent views. With regard to the care provided, again there were few positive ratings and ‘reassurance by the clinician’ was again the item with the most negative ratings (rated a weakness for four out of 12 providers). For the post-consultation ratings, the users identified weakness areas similar to the users receiving telephone advice. ‘Ease of getting medicines’ and ‘advice on when to contact own GP’ were both rated negatively for 6 of the 12 providers.

Home visits
Users receiving home visits rated the initial telephone contact more negatively than users receiving telephone advice or visiting the treatment centres (see Fig. 4). ‘Information provided by the GP’ was rated as a weakness for six of the nine providers and ‘numbers of calls made’ rated as a weakness for four providers. Speed of call back by clinician was again rated negatively across all providers.

In contrast with the telephone advice and treatment centres, these users responded more positively about the care provided with the ‘respect shown for you’ rated as a strength for eight of the nine providers and both ‘ability to listen’ and ‘satisfaction with help’
rated as a strength for five providers. For the post-consultation ratings, again users were more critical with advice on when to contact GP rated a weakness for six providers and getting medicines rated a weakness for five providers.

**Overall scores**
The overall scores for the providers of each type of care along with the national mean scores (benchmark data available from CFEP database) are also provided in each of the user evaluation matrices. For telephone advice and home visits, the overall scores of the providers were generally higher than the national mean (telephone advice 6 of 10 providers above national mean and home visits six of nine providers above national mean). However, for the treatment centres, the scores were below the national mean for 7 of 12 providers. Of the nine providers who provided all three types of care, three scored above the national mean for each type of care and one was rated below the national mean for each type of care.

**Accessing the service**
The further data collected regarding the practical aspects of contacting the GP OOH providers is provided in Table 1. The NHS A&E centres and NHS Direct (Wales) were excluded as users would access these services directly. With regard to their first telephone call, for each type of care, most users contacted their GP and there appeared to be few notable differences across the types of care. Most users (77%) only made one call to the out-of-hours service but it is notable that more users who received home visits made more than two calls to the providers. The receptionists at the out-of-hours providers were judged to have answered the phone within a minute for 86% of respondents. With regard to the call back by the doctor, nurse or paramedic, there were no notable differences across types of care with 53% of patients reporting that they were called back within 20 minutes and 74% reporting that they had been called back within 40 minutes. Only 8% reported that they were called back after more than an hour.

**Length of consultation**
User estimates of the length of their consultations are provided in Table 2. Users receiving telephone advice reported the shortest length of consultation (69% <10 minutes), those visiting treatment centres had longer consultations (55% <10 minutes) and those having...
home visits had the longest consultations (69% >10 minutes).

Travelling and waiting times
User estimates of their travelling and waiting times for visiting GP OOH treatment centres and the NHS A&E centres are provided in Table 3. For both types of centre, most patients travelled for <30 minutes (86% for GP OOH Centres and 83% for A&E centres). It would appear that users visiting GP OOH Centres waited shorter times than those visiting the A&E centres (78% of users waited <20 minutes at GP OOH Centres; 53% waited <20 minutes at A&E centres).

Discussion

Summary of results
This large survey of users of out-of-hours primary care across Wales identifies consistent strengths and weaknesses across different providers and different types of care. Users were consistently positive about the manner of the call operators and the explanations they provided as to what would happen next. The speed with which users were called back by a clinician was considered to be too slow despite the majority being called back within 40 minutes. The initial telephone contact which is part of the interface between ‘in-hours’ care and ‘out-of-hours care and post-consultation’, which represents the interface between Out-of-Hours care and ‘Self-Care’ were identified as other areas of difficulty for users. How to access the out-of-hours services, and advice from out-of-hours providers on how or when to access in-hours surgeries for further advice or care, and the availability of medicines after out-of-hours consultations were almost uniformly among the worst rated aspects of care.

Strengths and weaknesses of this study
This study reports findings from 855 recent users of 13 different out-of-hours service providers across Wales. Thus, despite a relatively poor individual response rate, we have achieved wide geographical and provider coverage. These providers include different types of GP out-of-hours providers (Hospital Trusts, GP cooperative and private companies) and NHS A&E departments. The consistency of users’ views across providers is notable and our approach of identifying strengths and weaknesses has face validity in relation to other reports. Our sample provides a description of one important aspect of quality of care, patients’ or carers’ views and experiences, across varied service provision. Within each service provider’s ratings, we distinguished between different types of care as different patients may have very different needs. This large scale survey trades-off the strength of evaluation from a population of users.
likely to indicate generic strengths and weaknesses of service provision.

The survey was not complemented by data on actual response times or consultation duration (that may be available from the clinical systems). Overall, the response rate was lower than other studies in this health care sector despite considerable efforts to encourage responses from patients.12,14–18 Users who have had relatively brief and hopefully not readily repeated contacts with health care services may be reluctant to complete questionnaires particularly if these come from relatively remote organizations. This low response rate is particularly relevant when group sizes for treatment type within provider are small that is why we have avoided making direct comparisons between providers but instead identified consistent results across providers. We found no evidence of non-response bias from particular age groups or by gender. However, our findings must be interpreted with caution and require replication or confirmation from other evaluation methods.

**Context and interpretation**

We have studied a similar sample to those surveyed by Campbell et al.,18 however, we have more detailed results about user’s views on the care provided. We found similar results in terms of time to answer the first calls, length of time for a health professional to call back and length of wait at treatment centres. However, by extending this to the whole of Wales, we are able to provide a more generalizable picture of service provision. The users’ ratings in this survey can be considered to be a product of their service provided and their concerns about the need for medical care. The most notable example of this is the users’ identification of the speed of call back by a clinician as a very common weakness despite most patients being called back within 40 minutes and only 8% being called back after 1 hour. The UK National Quality Requirement3–5 requires that clinical assessment of all calls must begin within 60 minutes. While service providers need to review their performance in calling patients back, they also need to provide more information to the user at first contact. It would appear that for users, this is a key indicator of their experience and influences their perception of the quality of the service provided. These in turn have been shown to affect patient enablement.19 Similarly, for those users attending treatment centres, there is a consistent view that the time taken to travel to the centre is too long even though 85% of patients travelled for <30 minutes. Users receiving home visits identified more weaknesses when contacting the service but more strengths for the care provided. It is likely that users requesting home visits would be more anxious (due to the severity of the problem) and may have had to persuade the providers of the

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**Table 1** *Organization called first, number of calls made, time to answer phone and time to call back for users contacting GP out-of-hours providers*

<table>
<thead>
<tr>
<th>Organisation called first by user</th>
<th>Telephone advice</th>
<th>Treatment centre</th>
<th>Home visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>142 (61)</td>
<td>179 (65)</td>
<td>101 (56)</td>
</tr>
<tr>
<td>NHS Direct</td>
<td>59 (25)</td>
<td>63 (23)</td>
<td>52 (29)</td>
</tr>
<tr>
<td>Other</td>
<td>28 (12)</td>
<td>24 (9)</td>
<td>19 (11)</td>
</tr>
</tbody>
</table>

**Table 2** *Users estimates of length of consultation for all providers (including NHS A&E centres and NHS Direct Wales)*

<table>
<thead>
<tr>
<th>Length of consultation</th>
<th>Telephone advice (n = 293) (%)</th>
<th>Treatment centre (n = 383) (%)</th>
<th>Home visit (n = 179) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 minutes</td>
<td>78 (27)</td>
<td>66 (17)</td>
<td>8 (4)</td>
</tr>
<tr>
<td>5–9 minutes</td>
<td>125 (43)</td>
<td>144 (38)</td>
<td>40 (22)</td>
</tr>
<tr>
<td>10–15 minutes</td>
<td>68 (23)</td>
<td>113 (30)</td>
<td>72 (40)</td>
</tr>
<tr>
<td>16–20 minutes</td>
<td>9 (3)</td>
<td>25 (7)</td>
<td>24 (13)</td>
</tr>
<tr>
<td>&gt;20 minutes</td>
<td>4 (1)</td>
<td>23 (6)</td>
<td>27 (15)</td>
</tr>
</tbody>
</table>

**Table 3** *Travelling and waiting times for patients travelling to GP out-of-hours centres and to A&E Centres*

<table>
<thead>
<tr>
<th>Patients attending GP OOH Centres (n = 274) (%)</th>
<th>Patient attending A&amp;E Centres (n = 109) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travelling time to the treatment centre</td>
<td></td>
</tr>
<tr>
<td>&lt;15 minutes</td>
<td>132 (48)</td>
</tr>
<tr>
<td>15–29 minutes</td>
<td>104 (38)</td>
</tr>
<tr>
<td>30–59 minutes</td>
<td>32 (12)</td>
</tr>
<tr>
<td>&gt;59 minutes</td>
<td>3 (1)</td>
</tr>
<tr>
<td>Waiting time at the treatment centre</td>
<td></td>
</tr>
<tr>
<td>&lt;10 minutes</td>
<td>128 (47)</td>
</tr>
<tr>
<td>11–15 minutes</td>
<td>59 (21)</td>
</tr>
<tr>
<td>16–20 minutes</td>
<td>28 (10)</td>
</tr>
<tr>
<td>21–25 minutes</td>
<td>13 (5)</td>
</tr>
<tr>
<td>26+ minutes</td>
<td>43 (16)</td>
</tr>
</tbody>
</table>

against the deeper insights about individual episodes and ‘human stories’ that other methods would uncover. However, consistent ratings across types of care are
need for the home visit. However, it is reassuring that once they receive their home visit, it appears to address their needs.

With regard to users' views of the actual care provided, it is notable that the only item rated consistently is 'reassurance by the clinician' and that this is seen as a weakness. It may be that patients seeking help from out-of-hours care are commonly in the early stages of acute illness and thus, it may be difficult for clinicians to provide reassurance. Additionally, the patients themselves may be particularly anxious. It could also be difficult to provide reassurance to patients, particularly over the telephone or when there is no pre-existing relationship between user (patient) and clinician. It was also notable though that users receiving home visits appear to rate their consultations (though not the process of acquiring them) slightly more positively. This could be because users view the clinicians more positively if they have 'taken the trouble' to visit them at home. Arguably, the absence of favourable ratings about the consultation process represents an important area for improvement, though one, which may require quite high-intensity interventions to improve, such as clinician training in communication skills.

**Implications for practice**

From the weaknesses identified, it would appear that some specific interventions are needed to improve the pathway of accessing and using out-of-hours services. General practices need to provide clearer information as to how out-of-hours services are provided and how to access them. Service providers may need to increase availability of clinicians at the triage or advice stages and more attention needs to be paid to how patients should get their medicines and when they should contact their own GPs. These improvements could result in greater efficiency of the out-of-hours services overall as patients may reconvene frequently for the same illness episode if they do not feel their needs have been met or feel unable to cope adequately with their condition.6

**Further research**

This study has identified specific areas for improvement to out-of-hours services. Policy-makers, commissioners and providers can review these findings and integrate them into service developments in line with current strategy.20 Once implemented, further mixed methods research could be conducted to evaluate whether these apparent weaknesses in the service provision have been improved. If improvements in user experience are demonstrated, further research will also be possible into whether the improvements are associated with improvements in patient enablement10 and actual health outcomes and whether the interventions to make these improvements are cost-effective. Other areas for further research could include more detailed evaluation of the influences on user experiences, in particular the relationship between expectations and whether these are met by different types of provision (telephone, treatment centre and home visit).

**Conclusions**

This study describes user experiences and ratings of different out-of-hours services and is an exemplar of how users can be involved in making important contributions through their feedback towards shaping health care services. While experiences were generally favourable, some specific areas for improvement concern the interface between in-hours care and out-of-hours care and between out-of-hours care and self-care. General practice surgeries need to give better information on how to access the out-of-hours services, out-of-hours providers should improve the advice that they give to users on how or when to access in-hours surgeries for care and also improve the availability of medicines after out-of-hours consultations.

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**Declaration**

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Conflicts of interest: none.

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