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Vision rehabilitation (VR) services: investigating the impacts of two service models

RESEARCH FINDINGS

Users of both in-house and contracted-out services reported similar positive feelings regarding the impact of rehabilitation, although younger people (aged 65 and under) reported greater gains

None of the services used a validated tool to measure and monitor individual outcomes

On average, vision- and social care-related quality of life and level of independence all marginally improved between baseline and six months, but there were no differences between service types

There were differences in delivery of the two models. In-house services had longer planned VR duration but longer waiting times; users were referred to VR for more varied reasons; and rehabilitation goals were more likely to include additional areas of support

In-house VR services were likely to be the more cost-effective from a social care perspective. Contracted-out VR services were likely to be the more cost-effective from an integrated social and health care perspective, whether outcomes were measured in SC-QALYs or H-QALYs

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BACKGROUND

The Care Act 2014 highlighted the importance of rehabilitation by requiring local authorities to promote well-being and independence before people reach a crisis point. The Act explicitly referred to the importance of rehabilitation for people with sight loss. While demographic changes mean an increasing number of people live with sight loss, research evidence about how much rehabilitation services improve outcomes for this group, what are best models of service delivery, and whether they are good value for money is limited.

This project sought to narrow this evidence gap by exploring the (cost-) effectiveness of two models of vision rehabilitation (VR) services (Local Authority in-house and contracted-out) in England.

Methods

The study employed a comparative design and mixed methods approach. A selection of people with sight loss using eighteen VR services (nine in-house and nine contracted-out) were interviewed by telephone at the start of using the service (baseline), four weeks (T1) and eight weeks (T2) after they started using the service, and six months later (T3). Differences in experiences and outcomes were examined between the two groups over time. 233 service users were recruited to the study and 73% completed follow-up at the final T3 interviews.

At each interview, three standardised and one bespoke measures were used to assess:

- Health-related quality of life (EQ-5D-5L)
- Vision specific quality of life (NEI-VFQ-25)
- Social care-related quality of life (ASCOT SCT-4)
- Use of services - including NHS, social care, third sector and independent providers, as well as out-of-pocket and informal care costs (SCPQ).

Additionally, semi-structured qualitative interviews were conducted in nine VR services (five in-house and four contracted-out services) with one manager, one rehabilitation officer and two service users interviewed from each of those services.

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EFFECTIVENESS OF IN-HOUSE AND CONTRACTED-OUT SERVICES

Local authority (LA) in-house services offered a more extensive rehabilitation service than contracted-out services (median of 6 weeks vs 4 weeks of planned rehabilitation), with clients referred for more varied reasons, such as improving their confidence and emotional well-being. Contracted-out services were primarily focussed on mobility and independence. These differences were reflected in the goals set for service users. While similar proportions of goals related to mobility and independence, LA-in-house services also set goals around employment advice and emotional support, whereas contracted-out services were more likely to set information and sign posting goals. Waiting times for LA-in-house services were longer (median of 8.7 weeks vs 3.0 weeks).

The study design meant it was not expected that service user characteristics would be the same between service types, and it is possible that different services attract different individuals. Service users in the contracted-out group tended to be slightly older (64% vs 54% aged 60 and over) and were more likely to live with a family member (22% vs 11%). Glaucoma (16% vs 8%) and diabetic retinopathy (14% vs 7%) incidence was more likely in the contracted-out group, however individuals in this service were less likely to suffer from other health conditions such as arthritis (18% vs 26%), anxiety/depression (7% vs 18%) or a lung condition (8% vs 16%). The limited study sample size may explain some of the observed group differences.

After further data collection up to six months follow-up, the research team observed limited improvement in vision related quality of life (VFQ-25 average improvement from 39 to 42 points), social care related quality of life (ASCOT average improvements from 0.68 to 0.74 points) and independence (average improvements from 5.9 to 6.2 points). There was no statistical significance ($p>0.05$) for differences in quality of life (VFQ-25 / ASCOT) between service types at any follow-up, while controlling for age, gender, living situation and baseline quality of life. Results should be evaluated in light of 31% of service users across both service models having received VR previously.

THE COST-EFFECTIVENESS OF IN-HOUSE AND CONTRACTED-OUT SERVICES

The study estimated the incremental effect of in-house vs contracted-out services on outcomes and costs controlling for user and local authority characteristics. More precisely, it estimated panel data linear regressions by random effects generalised least squares on multiply

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imputed data. Compared to contracted-out, in-house services had on average better outcomes (in terms of SC-QALYs and H-QALYs), lower social care costs and higher social and health care costs. Increased social and health care costs for in-house users were mostly driven by hospital costs. Such differences were associated with high uncertainty.

Using these findings, the research team undertook the cost-effectiveness analysis of in-house vs contracted-out services from two perspectives: the social care perspective, and the social and health care perspective. Under the social care perspective, there was a 90% probability that in-house services were cost-effective compared to contracted-out services. In contrast, under the integrated social and health care perspective, whether social care outcomes were used (SC-QALYs) or health outcomes (H-QALY) were used, for either approach, there was only a 25% probability that in-house VR services were cost-effective.

These results are robust to alternative econometric specifications for the estimation of the incremental effects. They were robust also to different assumptions about the missing data mechanism.

This study, however, had a number of limitations and therefore the findings should be interpreted with caution. The research team were unable to test the representativeness of the sample and, in turn, the generalisability of the results because of the lack of information about the VR user population. The estimated effect size for the sample of 233 VR users was around 0.7 (initially aimed at having detectable effect size of 0.33 with sample size of 500), which may not allow for small differences in outcomes and costs between in-house and contracted-out services to be identified. Finally, the presence of a large proportion of missing data in the follow-up time points (approximately 31% on average) increases the uncertainty of these estimates.

PERSPECTIVES OF STAFF PROVIDING VR SERVICES

The following key points came from interviews with service managers and rehabilitation officers (ROs) in the services:

- The remit of ROs' duties within the in-house services during the last decade has expanded from a focused VR role to additional generic work, for example, carrying out full holistic social care assessment, arranging social care, advising on benefits/form filling, and completing carer assessments. In contrast, within the contracted-out services, the LA funding is specified purely for VR work; any other work identified by the RO would be referred to social services for further assessment.
- While in-house services restricted activities to one-to-one support, contracted-out services offered a range of opportunities for social and leisure activities with funding from other sources – largely supported by volunteers.
- In-house services were more likely to operate in collaboration with other LA teams (social workers; OTs; mental health teams) as well as third sector organisations. In contrast, contracted-out services reported closer links with other sight loss organisations.
- None of the services used a validated tool to measure and monitor individual outcomes. Most in-house services largely relied on informal reviews; while contracted-out services often used measurement tools, there was no consistency across services and they often adapted tools for their own purposes. All managers and ROs felt that the system they were currently using was not adequate in capturing the extent of change rehab interventions made to an individual's life.
- LA staff reported the main benefits of in-house services as holistic working, providing opportunities for joint working, and the freedom to run the VR team more flexibly.

Refreshable braille display linked to computer

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The shortages of ROs and the competing additional social care responsibilities within their LA role presented challenges, with knock-on effects on waiting times and throughput.

- The benefits of contracted-out services reported included staff perceptions of being able to leverage additional funding to organise group activities, which they considered to be one of the main gaps in services for people with sight loss. The insecurity in LA funding was reported as challenging, with negative consequences for staff numbers and motivation. Collaborating with LA services was also highlighted as a challenge.

SERVICE USER EXPERIENCES OF VR SUPPORT

The majority of service users had limited initial understanding of the principles of rehabilitation but, after receiving the service, most reported improved confidence and motivation, and a greater sense of independence. People commonly reported a sense of security in knowing support was there if needed. More practical benefits were reported as the ability to make a drink/use the microwave, increased mobility, and access to specialist equipment.

There were no noticeable differences reported between the users of in-house and contracted-out services in the number and frequency of the visits, supply of equipment, and support with independent living skills and mobility training.

Younger people, who had expressed greater motivation to regain independence, reported greater gains – mostly associated with mobility – but also with communication skills and socialising.

Older people were less likely to report substantial changes to their sense of independence. Several older people said they preferred to rely on family support and continued to feel unsafe venturing out alone. In contrast, most younger people reported that rehabilitation support had decreased their reliance on family support.

Several users with degenerative conditions felt earlier access to rehabilitation services would have been more beneficial in helping them prepare for the future in terms of independent living and finances. None of the service users reported having had any follow-up contacts but most felt confident about how to re-access the VR team if they needed it.

While the users of in-house and contracted-out services had similar feelings regarding their independence and contentment with the VR service, there were some marked differences in their experiences of using the service.

Supporting the findings of interviews with managers and ROs, the waiting time reported by users varied from 1–3 months for in-house services to less than a month for contracted-out services.

In addition, in-house users reported receiving a wider range of one-to-one generic support (such as advice on benefits/form filling and help with arranging home adaptations and completing carer assessment forms). In contrast, users of the contracted-out services were more likely to report that they had been offered group-based activities and signposted to other sight loss charities (for example, for advice on benefits, IT training courses and cooking classes). Several users who had taken up the group activities said the sessions had increased their social contacts and made them feel less isolated and more aware of other support available for people with sight loss, although a few younger users felt the group activities did not match their interests.

In making decisions around commissioning and delivering services, these findings should be considered, alongside the following points

- This work adds a set of valuable broad methodological perspectives as well as a (more limited) outcome dataset to inform commissioning of VR services in relation to cost-effectiveness.
- Despite the professional interest in demonstrating the value for money of VR services, reflected in the number of VR services participating in this study, the findings indicate that the lack of outcome orientation among VR services constrain a full-scale evaluation of such services.
- The work makes suggestions in relation to extending routinely available datasets to extend the power of routine datasets to inform decision-making.
- Limitations around the lack of routine data and difficulties in recruiting an adequate sample size (planned 500) mean it was not possible for the study to provide the robust evidence it had aimed for.
- More consistent collection of routine datasets and a larger sample are required to provide more definitive results.

CONCLUSIONS & IMPLICATIONS

- The cost-effectiveness analysis suggests that perspective counts. From the social care perspective, in-house vision rehabilitation (VR) services appear to be more likely to be cost-effective compared to contracted-out services. However, the opposite is true under the integrated social and health care perspective. These findings should, however, be interpreted with caution because of the limitations of the study design.
- In terms of improved outcomes for VR service users overall, the research team were unable to demonstrate substantial differences between services in generic quality of life measurements but a small gain in the sight specific outcome measure was noted.
- Qualitative reports from service users suggest they valued the service they used and reported feelings of improved confidence and increased independence.
- Service users also suggested that people's own characteristics (e.g. age, motivation to regain independence, the length of time they have lived with sight loss) might have an impact on whether rehabilitation makes a difference to them.
- Interviews with managers and rehabilitation officers suggest that while both models provided basic vision rehabilitation support, in-house services were expected to cover broader aspects of social care support than contracted-out services; in contrast, contracted-out services offered a range of opportunities for social and leisure activities with funding from other sources.

FURTHER READING

Longo F, Saramago P, Weatherly H, Rabiee P, Birks Y, Keding A, Sbizzera I (2020) Cost-effectiveness of in-house vs contracted-out vision rehabilitation services in England, *Journal of Long-term Care*, 118–130. https://journal.ilpnetwork.org/articles/10.31389/jltc.26

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