Rapid Evidence Synthesis: S12 Solutions

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Rapid Evidence Synthesis:

Rapid Evidence Syntheses (RES) are produced by the National Institute for Health and Care Research (NIHR) Applied Research Collaboration Greater Manchester (ARC-GM). The methods used are based on a framework set out in Norman et al. 2022 and previously registered on the Open Science Framework (OSF). [a,b]

RES use evidence synthesis approaches and draw on the GRADE Evidence to Decision framework[c] to provide rapid assessments of the existing evidence and its relevance to specific decision problems. In the first instance they focus on evidence from guidance and existing evidence syntheses. They are undertaken in a real-time context of decision-making around adoption of innovative health technologies and are designed to provide a "good-enough" answer to inform decision problems in a short timescale. RES methods are flexible and adaptive. They have evolved in response to user feedback and differ depending on the nature of the assessment undertaken.

RES are not intended to serve as a substitute for a systematic review or rapid review of evidence.

We welcome feedback and are particularly interested to hear how you have used this Rapid Evidence Synthesis.

Please send any queries or comments to:

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Additional information:

This work was undertaken by the National Institute for Health Research (NIHR) Applied Research Collaboration Greater Manchester (ARC-GM). The views expressed are those of the author and not necessarily those of the NIHR or the Department of Health and Social Care.

[a] Norman, G. Rapid evidence synthesis to support health system decision making. *OSF registration.* 2020 [cited 2023]; Available from: osf.io/hsxk5

[b] Norman, G., et al., Rapid Evidence Synthesis To Enable Innovation And Adoption in Health and Social Care. *Systematic Reviews,* 2022. **11**: p. 250. https://doi.org/10.1186/s13643-022-02106-z

[c] Alonso-Coello, P., et al., GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 1: Introduction. *BMJ*, 2016. **353**: p. i2016.

1. Summary

There is relevant but extremely limited non-comparative evidence for some positive impacts of S12 Solutions on processes of section 12 assessments, reported by health professionals. The overall impact of adopting S12 Solutions on both the pilot and neighbouring areas is very uncertain. There is no direct evidence for the impact of S12 Solutions on service users. There is no evidence for other technological interventions intended for the purpose of facilitating section 12 assessments.

- There is no comparative evidence for the impact of S12 Solutions on section 12 assessment processes and outcomes.
- There is limited noncomparative evidence of some positive impacts of S12 Solutions on processes from two pilot studies which were uncontrolled before and after studies with limited outcome reporting. These took place in urban and rural areas of England, jurisdictions covered by the Mental Health Act (1983). The impact of the urban area pilot on neighbouring areas is unclear and the overall impact of the innovation is uncertain.
- There is no direct evidence for the impact on service users of using S12 Solutions; there is indirect evidence that more timely assessments reported by health professionals may be a positive impact for them.
- We did not identify other technological interventions with the purpose of facilitating section 12 assessments.

1.1 Brief description of the intervention and its purpose

- S12 Solutions is designed to improve the process by which someone is assessed under section 12 of the Mental Health Act 1983 which provides for detention and treatment in hospital without consent.[1] The act requires that people should usually be assessed by three professionals: an approved mental health professional (AHMP), and two medical doctors, one of whom should have specific training in mental health problems known as a "section 12 approved doctor"; in some situations the requirements are lower. Problems with the coordination of professionals for an assessment have been reported.[2]

- S12 Solutions is a platform, delivered via an app and website, that connects AHMPs with available local doctors who are section 12 approved, in order to facilitate section 12 assessments, and then allows completion of forms and data capture within the platform. The aim of the innovation is to improve the timeliness and ease of conducting section 12 assessments, with concomitant benefits to systems, healthcare professionals and service users.[3] In 2019 it was selected for the NHS Innovation Accelerator initiative.[4] It is designated as a level 2 app by ORCHA and has a rating of 83% from them.[5]

2. Methods

2.1 Key Questions

Q1. What is the research evidence for the impact of S12 Solutions on the process of section 12 assessments (and related assessment processes) and on outcomes for both professionals and service users?

Q2. If there is limited evidence for S12 Solutions, what is the research evidence for the impact of technological interventions designed to support the conduct of section 12 assessments on outcomes for both professionals and service users?

2.2 Search

We searched PubMed using search terms which were variants of S12 Solutions and S12 or section 12 assessments. We also searched the Cochrane Library, including the websites of the Effective practice and organisation of care (EPOC) and mental health review groups, for technology which facilitates communication or coordination between health professionals. We searched the websites of the company responsible for the innovation, ORCHA, and the NHS accelerator programme. Searches were carried out between 06 May and 15 May 2020.

3. Results

3.1 Q1: Research evidence for S12 Solutions

The company's website makes reference to pilots undertaken in two sites.[3] A report on the NHS accelerator website provides detail that these were both undertaken in the jurisdiction to which the 1983 Mental Health Act fully applies (England and Wales).[4] The two pilot sites had different characteristics, representing both rural (Cumbria) and urban (Southwest London) locations. A total of 61 AHMPs were eligible to participate in pilots (i.e. they worked frequently and were responsible for finding S12 doctors to attend assessments. These looked at metrics around the completion of S12 assessments and also S136 assessments, which relate to urgent situations with police involvement. We did not identify any additional evidence from our searches.

The pilots were designed as uncontrolled before-and-after studies but were only partially reported as such. The design was changed after the studies were begun with baseline surveys not repeated at pilot end, reported as being due to technical issues and failure to establish reliable baseline. Much of the data reported took the form of case-studies and qualitative responses from participants, in addition to some numeric change-from-baseline data. The pilot studies found that AHMP majority responses were positive in terms of accessing more doctors, beginning assessments sooner; one site was also positive finding doctors who were the "best fit" and both reported improving the set-up process overall "sometimes". Uptake appeared reasonable. One site reported completing more assessments within a day (63% increase). No data to enable informative comparisons were reported.

There is no information on the impact of using S12 Solutions on service users. The evidence available is only indirectly relevant to service users in that it may be inferred that beginning or completing assessments more rapidly or having doctors who were a "good fit" may be a benefit to service users. There is also no way of establishing what would have happened in these pilot sites or others like them with no intervention (because there is no comparator). There is also no way of establishing the impact of piloting the intervention on neighbouring areas not using it in urban areas where there is demand from more than one regional unit for the services of S12 doctors. The issue of competition between service areas is raised in the reports but it is not known whether the intervention created new S12 doctor capacity or switched it between areas; in the rural pilot it appears more likely that capacity is newly realised.

3.2 Q2 Research evidence for similar interventions

We did not identify any research evidence for other technological interventions designed to support section 12 assessments.

Because section 12 assessments are a very specific procedure which presents procedure-specific demands and issues we did not undertake a wider search for evidence for interventions which improve communication and coordination between health professionals more generally. However we note that the World Health Organisation (WHO) has commissioned guidelines to inform investment in digital health applications for strengthening health systems.[6] A Cochrane review of the effects of

mobile-based technologies compared standard practice for supporting communication and client management in healthcare providers is currently in progress and will contribute to these guidelines.[7] A recent Cochrane review of qualitative studies identified a range of considerations when implementing mHealth technologies for primary healthcare services, some of which may be applicable in this context, in particular the need for training on any new way of working.[8]

4. References

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5. Organisation for the Review of Care and Health Apps (ORCHA). https://www.orcha.co.uk/

6. World Health Organisation (WHO) https://www.who.int/health-topics/digital-health#tab=tab_1

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