

## **The New Gold Standard in Online Delivered Behavioral Health Programs**

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### **Abstract**

*Background:* Recent reforms in the US healthcare space are seeing an exponential increase in demand for care and also a regulation of esteem between physical and behavioral healthcare. Healthcare providers are under increasing pressure to provide cost-effective and high quality services to a large number of individuals. Online delivered interventions have the potential to provide a solution to healthcare providers as they can provide accessible and flexible healthcare.

*Objective:* Online delivered behavioral health programs have developed an empirical base. The majority of this evidence-base has originated in Europe and Australia. The US healthcare market is now in a position to realize the benefits of online delivered behavioral health programs that offer excellent solutions to many of the difficulties in accessing behavioral healthcare in the US.

While some guidelines and other operational characteristics have been developed, no standard setting out what is required of any connected health intervention is established. The US can look to the empirical base from developments and research worldwide, and also to thought leaders who are integrating the available evidence-base to shape standards of excellence for the future of online delivered behavioral health interventions. To that end the poster outlines some of the attributes, drawn from the evidence-base, that could be considered to be some of the necessary criteria needed to characterize any gold standard intervention. This set of attributes would therefore define excellence in connected healthcare delivery and help inform best practice.

*Conclusions:* It is therefore proposed that a gold standard online-delivered program for behavioral health should include at least some of the following points:

1. Include the use of evidence-based and empirically supported content
2. Focus on accountable care and deliver on effective clinical outcomes
3. Be developed on robust, engaging, secure and responsive technologies
4. Be informed and shaped by behavioral health subject matter experts' clinical expertise
5. Be patient-centric: involve users in the development and evaluation process and a high degree of personalization
6. Have research and evaluation that supports its effectiveness

*Keywords:* behavioral health online; behavioral online interventions; best practice; connected health programs; evidence base; gold standard; increasing access to behavioral interventions; parity of esteem

## **Introduction**

Healthcare in the US is currently undergoing reform. The purpose of the reform is to improve service provision, to enhance the quality of care provided while reducing the quantity of that care provided, while at the same time serving the growing demand for care and maintaining good clinical outcomes. The U.S. health services are being reformed in an attempt to ensure more individuals in need of psychological support can access the services they need. This is the movement to parity of esteem between the delivery of physical and mental health care [1].

With payment based upon the effectiveness of treatment, it is also proposed that re-referrals or re-admissions will be significantly reduced and consequently the cost of health care will be reduced, therefore reducing the 'revolving door' phenomenon [2].

The combination of healthcare reforms and the revolving door epidemic, have led to a focus on providing effective high-quality behavioral health solutions with long-term outcomes. As a result, health care providers are under pressure to find ways to cope with the increase in the demand for health services, while also ensuring that the treatments offered are effective and of high quality to promote long-term treatment gains. This

challenge is also an opportunity to find new and creative ways to address the needs of service users.

Healthcare and behavioral healthcare providers are beginning to realize the potential of technological advances to aid in the delivery of treatments, with online delivered interventions gaining ground as a new medium for the delivery of care [3]. Online behavioral health interventions have a robust body of evidence supporting its acceptability and effectiveness [4-9]. However the question remains as to but how does a healthcare organization know they are commissioning a Gold Standard Service provider?

### **A Gold Standard in Online Behavioral Health Solutions**

“Gold Standard” is a term defined as “the supreme example of something against which others are compared and measured” [10]. Simply put, something that is considered to be “gold standard” is considered to be the best of its kind. Standards are essential in ensuring that the services provided to patients are safe, effective and approved by accreditation bodies. In other words, only treatments that are empirically supported and have been shown to work should be provided.

A number of accreditation bodies such as The Joint Commission and the National Committee for Quality Assurance (NCQA) evaluate the quality of behavioral interventions and award a “gold seal of approval” to services that meet their criteria for accreditation. Some efforts have also been made to provide guidelines for the development of online delivered health interventions [11]. However, at present there is no “gold standard” outlining best practice in the development of online programs in behavioral health integrating all aspects involved in its lifecycle: from conception to design, development, implementation and evaluation.

The lack of guidelines or standards poses a new challenge for health care providers, who must turn to the evidence base and integrate scientific evidence, clinical expertise and expert opinion in order to set robust and credible standards online interventions. It is proposed that “Gold standard” programs need to fulfil a number of criteria to ensure that they are satisfactory to health care policy makers, providers, clinicians and service users, and suitably recognized as high quality and effective treatments. Some of these criteria would include, but perhaps not be limited to, the points discussed below.

**A Gold standard online behavioral intervention should:**

### **1. Include evidence-based and empirically supported content**

The content should be developed from the evidence-base, particularly with regards to the components known to effectively promote behavior change [12, 13]. The use of evidence-based content is considered to be best practice for behavioral interventions. The American Psychological Association defines evidence-based as: “the integration of the best available research with clinical expertise in the context of patient characteristics, culture and preferences” [14].

### **2. Deliver effective clinical outcomes**

Outcome measures with a strong evidence based for validity and reliability should be incorporated to facilitate detecting change over time, set treatment goals, monitor recovery, assess the effectiveness of a program, and to alert clinicians to treatments which may be ineffective or harmful [15-17]. Qualitative measures should also be included to gain insight into patients’ experiences.

### **3. Be delivered on robust, engaging, secure and responsive technologies**

Online programs should optimize engagement through interactivity, personalization and social support to improve the likelihood of favorable outcomes [18, 19]. Additional functionality to meet specific needs and incorporate human support has also been shown to reduce drop-out and improve outcomes [8, 20]. Privacy and security are key factors, which should be aligned with standards and requirements. The OECD Privacy Principles [21], ISO security best practices and security management standard [22, 23] provide such a framework. For the US, HIPAA and HITECH compliant measures must be in place [24,25].

### **4. Incorporate Subject Matter Experts’ (SMEs) clinical expertise**

SMEs clinical expertise and knowledge of specific conditions or approaches is another key ingredient to the development of evidence-based online programs. SMEs should ensure that theoretical grounding is maintained, and provide guidance on content development and on repurposing of clinical interventions for effective online delivery to ensure favorable outcomes [26].

### **5. Be patient-centric and involve users**

Content needs to be tailored to the patients' needs and preferences as this has been demonstrated to improve motivation and engagement, providing optimum conditions for behavior change [18- 20]. Service users' involvement in the development of online programs allows for the development of person-centred online programs that are tailored to meet the needs of users, improving content quality. Service users should be involved in all stages of development of online programs to provide an insight into users' needs and experience [27, 28].

## **6. Undergo research and evaluation to support its effectiveness**

The rigorous testing of online programs will continue to inform the development of a gold standard and statutory guidelines. Research methods appropriate to complex programs such as those recommended by the Medical Research Council [29] should be applied to account for the complexities of online programs and facilitate the systematic development and delivery of an effective high quality intervention. Qualitative research should also be conducted to gain an insight into users' experiences and to identify the helpful and hindering aspects of the program [30]. Randomized controlled trials should be conducted to provide an accurate measure of effectiveness [31-33].

## ***Conclusion***

It is clear, that in order to cope with the increased demand that is being placed on health care services in the U.S., it is necessary to find alternative health care solutions. The development of online programs that are considered to be gold standard, and shown to be clinically effective, can help to meet the burden of demand and reduce occurrence of readmissions in health care. It is proposed that several attributes, drawn from the evidence-base, could be some of the essential features characteristic of a Gold Standard intervention and could help inform best practice. This standard is an evolving set of attributes and will change in time with new research and evidence; however at present healthcare systems need some guidance, when commissioning quality health services and technology innovation, to ensure that interventions selected are of high quality and effective.

## Conflicts of Interest

All authors are employees of SilverCloud Health, global provider of online delivered behavioral interventions.

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