Wild West eHealth: Time to hold our horses?

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Dutch eHealth rocks. After years of rather disappointing eMental Health dissemination efforts - with uptake estimates varying between just 1% to 5% - the tide seems to be turning. In the media, the number of people receiving Internet-based help are reported to have tripled in a period of just three years. Mental health organisations issue press releases boasting that up to 50% of their patients will be treated using eHealth soon (van Dorresteijn, 2014). Implementation projects thrive. In a recent inventory among 101 Dutch mental health organizations, 73% showed active eHealth projects (Metselaar, 2013). Official uptake statistics are hard to come by and our contacts in the field still warn us for the gap between intentions and results. What is clear, however, is that mental health organizations have become much more eager to implement eMental health care. What happened?

There is a sobering explanation for the growing interest in eMental Health implementation. Money. Primed by promised benefits of eMental health care (of which cost-savings are not the least important), insurance companies award bonuses to mental health organisations which implement eHealth. In the coming years, these bonuses will be contingent on increasing percentages of clients treated with eHealth. Given the number of implementation projects, the strategy of the insurance companies appears to be successful. A key problem with this "success", however, is that it is unclear what this uptake will mean for the quality of care, since we are blind to the effects of many of the interventions that are implemented.

We fear that the eHealth bonuses of the insurance companies are not used to implement evidence-based treatment. Available validated programmes such as online self-help and guided self-help are shelved. They are judged to be outdated or incompatible with routine clinical practice. The new 'killer application' of Dutch eMental health care is blended treatment – interventions that combine face-to-face sessions with online contacts. Many organisations base their implementation projects on this new type of treatment, presumably because it is less disruptive to the organization than the 'established' types of eMental health. The choice is remarkable though, as research into the safety, efficacy and efficiency of blended treatment has only recently begun (e.g., see Kooistra et al, 2014). What was tested remains unimplemented and what is being implemented has not been tested.

One may wonder how it is possible that patients are exposed to unvalidated eHealth interventions. One answer is: a history of lenient regulation. The quality of implemented eHealth in Dutch mental health care has been allowed to be unclear for some time. Riper et al. surveyed the Dutch eMental Health landscape in 2007 and 2013. In both surveys, it was found that a majority of publicly available programmes had not been validated in terms of effectiveness. Perfunctory attempts have been made to regulate the field towards a more evidence-based practice, but these initiatives have been largely ignored. For example, the Dutch Trimbos Institute and the Dutch ministry of health developed the 'online hallmark' - a quality seal geared towards consumers. More than two years after its inception, in November 2012, the hallmark has been earned by just

two programmes. Given that reimbursements of eMental health care are not tied to the quality seal in any way, we don't expect this number to rise soon.

There is a double standard in mental health care. Pharmaceutical companies largely adhere – as they should – to the rules of evidence-based care: new antidepressants cannot be introduced until their safety, tolerability and efficacy have been extensively documented. In eMental health, these rules do not seem to apply - as often in the psychotherapeutic realm (Coyne & Kok, 2014). We rely on our collective good intentions and try to implement as quickly and as widely as possible. Effectiveness research comes later - if at all. Shoot first, ask questions later.

This is unsettling. What arguments are so convincing that we accept this double standard? In the following paragraphs, we present - and refute - a number of the arguments that we encountered in the field.

Four Arguments to Implement Unvalidated Ehealth (and Why They are Wrong)

1. "EMental health is Effective and Ready for Implementation"

Internet intervention research has been underway for more than 15 years. We learned that guided online treatment can be as effective as face-to-face psychotherapy (Cuijpers, Donker, van Straten, Li, & Andersson, 2010). There are clear indications that it is safe and cost-effective. There is no need, we heard people argue, to replicate this research in routine practice, even if the implemented programmes are untested. The current challenge is to implement eMental health, and that is a large enough task on hand as it is.

To imply that all eMental health is effective and ready for implementation is a misleading blanket statement. The argument holds for some eMental

health, but the assumption that similar programmes are also similar in terms of (cost)effectiveness is open to debate and empirical investigation, because we still know very little about the key characteristics of effective eHealth. In reality, the effectiveness of blended eHealth – by now the dominant model in the Netherlands – is simply unknown. From this, it follows that blended eHealth isn't ready for unquestioned implementation yet.

2. "The Medium is Not the Message"

A second argument to implement unvalidated e-health is to claim that applications can be assumed to be effective because they are based on clinical strategies that have proven their value in research and practice. Adherents adapt and adopt a validated protocol for face-to-face cognitive behavioural therapy to an interactive website and then assert that the quality of the programme is guaranteed. In this argument, eMental health is a transparent, ineffectual carrier of an effective message - the medium is not the message. Proponents argue that there is no need to test the effectiveness of the intervention because we know that it transparently delivers effective content.

This "let-the-content-do-the-talking" argument ignores everything we know about effective computer systems and human-computer interaction. The use of effective clinical strategies is a necessary, but insufficient condition for effective eHealth. If even the appearance of a pill can moderate its effects, it is easy to see why the e in eHealth is much more than an ineffective delivery capsule. E-mental health joins computer science with clinical psychology and requires the integration of knowledge from both disciplines, amalgamating clinically effective content with, e.g., persuasive design elements (Kelders, Kok, Ossebaard & van Gemert-Pijnen, 2012). E-health may enhance the effectiveness of clinical strategies or weaken it. It can be a catalyst but also a filter. Since the medium is inseparable from the message, thorough validation of individual programmes should

be a prerequisite for implementation.

3. "Absence of Evidence is Not Evidence of Absence"

The adoption of blended treatment is a prime example of a practice-based health policy. Given its wide acceptance by the mental health care sector, blended care seems to be more representative of routine daily practice. If 'blended' will bring mental health care the process optimisation that is so direly needed, validation research will temporarily have to take a back seat to implementation. When effects of a specific program have not been demonstrated, it is argued, this does not imply that these effects may not be there.

Rose-coloured glasses are fine, but when they obfuscate fundamental concerns and basic science, corrective glasses should be worn. E-health programs often aim for more efficient care, in which the same quality is offered at lower costs. Savings are often integral to the programs, e.g., by reducing the number of face-to-face sessions or the amount of therapist guidance. The programme is developed around desired savings that are stipulated from the start. When the effects of these savings on the quality of care are not assessed, one cannot claim that the quality is maintained. E-health can have both positive and negative effects. We cannot assume the former and ignore the latter (Rozental et al., 2014). The premise and promise of blended e-health is that it combines the advantages of face-to-face and online treatment, but it might also combine the disadvantages of both (e.g., when online components are not used by many patients, reductions in the number of face-to-face sessions might harm treatment outcomes). Anyone who does not take this into account, runs the risk to confuse simple budget cuts for effective care. When all you see is positive effects, you can always keep cutting budgets.

4. "Science is Too Slow for eHealth"

A thorough validation study, for instance in the form of a randomised controlled trial, usually takes years. The field does not have this time. In the Netherlands, the pressure to introduce eHealth is enormous. Government officials publicly complain about the slow uptake of eHealth and increasingly demand tangible upscaling results. National mental health associations have adopted the implementation of eMental health as a key policy theme. Organizations that tarry with the introduction of eMental health are financially pressured by contracting reimbursement partners. Available validated programmes are outdated, it is claimed. Current scientific validation methods are too slow to keep up with eHealth developments (Baker, Gustafson & Shah, 2014). To meet upscaling demands, mental health organizations are therefore forced to use interventions that lack evidence of efficacy.

Any healthcare organisation embracing the principles of evidence-based care should assess the impact of treatment programmes that are introduced, especially when the effectiveness of these programmes is controversial. Dutch mental health care organisations probably already have the basic tools to do so, as they are also pressed by insurance companies to evaluate their treatments through Routine Outcome Monitoring (ROM; see De Beurs et al, 2011). Science doesn't necessarily have to travel from the lab to daily practice. It can - and should be - an integral characteristic of evidence-based routine care. By combining ROM with a controlled roll-out of a new eMental health programme such as blended care, good indications of the effects of the new programmes in comparison to the current practice can be obtained. This need not take years - see, for instance, the stepped wedge cluster design (Keriel-Gascou, Buchet-Poyau, Rabilloud, Duclos, & Colin, 2014). Scientists would love to contribute to such projects. We really would. With joint efforts, there is no need for a tug-of-war between academia and societal uptake demands, with patients stuck in the middle. Yes, these implementation studies would require additional investments, but we are sure that insurance companies would understand if part of their eHealth / ROM bonuses is used to set up a research-

driven quality-assuring infrastructure in the field.

Time to Hold Our Horses

The dissemination of eMental health is not progressing too slowly, as policy makers sometimes complain. Current developments in the field suggest that we are moving too fast, and that the Dutch approach may not be the best model for the rest of the EU to adopt. In the UK, previous overzealous implementation of computerised CBT has backfired, resulting in recent eMental Health efforts being met with distrust and discontentment (Lina Gega, personal communication, 2014). What is claimed to be evidence-based on closer scrutiny turns out to be either evidence-assumed or eminence-based, e.g., because an intervention is loosely based on CBT or because an intervention has been around for some time or made by a reputable party. If unvalidated e-health becomes entrenched in routine care, the so-called 'sunk cost effect' will make this practically irreversible.

Scientific validation is a fundamental and critical step in the development process of any new treatment. Signs that this step is postponed or even skipped to force the dissemination of eHealth should raise red flags. EHealth can enrich mental health care. The political, social and economic tide for eMental health has never been better. Let us use this to do the right thing. Adopters of blended care: start your implementation trials!

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Note

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