

# Feasibility of the Dutch Blended Physiotherapy Checklist

## Masterthesis

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“ONDERGETEKENDE

Marloes Christel Everaers,

bevestigt hierbij dat de onderhavige verhandeling mag worden geraadpleegd en vrij mag worden gefotokopieerd. Bij het citeren moet steeds de titel en de auteur van de verhandeling worden vermeld.”

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## **ABSTRACT**

### *Aim*

Blended physiotherapy is the integration of a digital intervention and face-to-face therapy. Since physiotherapists in primary health care are not yet familiar with blended physiotherapy, it would be useful to support them in determining the suitability of the patient to receive blended physiotherapy and to determine the ratio between face-to-face physiotherapy and the blended component. Therefore, the Dutch Blended Physiotherapy Checklist (DBPC) was developed. The DBPC is a tool for conversation between physiotherapist and patient. It was not known how the tool could benefit primary physiotherapists. Therefore, the aim of the study was to investigate the feasibility of the DBPC.

### *Methods*

A mixed-method triangulation design was used. Primary health care physiotherapists participated in this study and used the DBPC in at least four patients over one month. In this study, blended physiotherapy consisted of face-to-face physiotherapy and the use of Physitrack. Physitrack is a web-based exercise program.

Both quantitative and qualitative data were based on feasibility areas of focus: demand, acceptability, implementation, integration, understandability and readability. Quantitative data were collected with a self-developed questionnaire. The purpose of the qualitative research is to explain quantitative results and gain deeper insight in the opinions of physiotherapists about the feasibility of the DBPC.

### *Results*

Of the fourteen physiotherapists who were included, 71.4% stated that the DBPC is feasible and they will use the DBPC in the future. They rated the DBPC with a 7/10. The thirteen analysed interviews revealed captured themes: efficiency, innovation and change of behaviour. There is no added value of the long-term use of the DBPC, because physiotherapists declared that they can use the DBPC by heart.

### *Conclusion*

In general, physiotherapists in primary health care were positive about the feasibility of the DBPC for determining patients suitability for blended physiotherapy. For physiotherapists who do not yet provide blended physiotherapy or physiotherapists who have only done so for a short period, the DBPC seems most feasible.

### *Clinical Relevance*

Physiotherapists who did not use blended physiotherapy prior to participation in this study and physiotherapists with the intention to provide blended physiotherapy are expected to experience additional value.

Keywords: feasibility studies, telemedicine, physiotherapy specialty, checklist

## INTRODUCTION

During the last decade, the focus of health has shifted from illness and care to self-management and health, in case of illness(1,2). In 2011, Huber et al. introduced a new concept of health as '*The ability to adapt and to self-manage, in the face of social, physical and emotional challenges*'. Self-management is defined as a patient-centered approach in which activation, education and empowerment of the patient are in cooperation with each other(3). In this new concept of health, a different approach of treatment is essential, in which caregivers are required to enhance resilience and self-management skills of the patient(4)(5).

The main target area of physiotherapy is movement and physical functioning of the body and it includes various methods of pain relieving techniques and exercises, as well as information and guidance that can stimulate the patient's learning processes about their physical functioning. Moreover, it could achieve the best possible way of a patient's functioning(6,7). The challenge for physiotherapists is how to coach their patients in increasing their self-management skills. The patient's active participation in the treatment involves a change in clinical practice as well as a major change in the way physiotherapists perform(8–11). New technologies could certainly be solutions for physiotherapists to support patients in improving self-management, physical functioning and to stimulate an active lifestyle for patients. Whereas physiotherapy is traditionally delivered face-to-face, recent studies have shown the potential the use of technology within the physiotherapy treatment, for example web-based interventions, digital applications and a virtual reality headset(12). Advantages of web-based interventions are: 24/7 accessibility, stimulation of therapy compliance and stimulate self-management skills(13). The integration of a web-based intervention and face-to-face therapy is called blended physiotherapy(3). Suitable online applications can be used for several behavioural change techniques, such as goal-setting assignments, monitoring of outcomes and behaviour, giving instruction, and providing information(14–16).

Research on the effectiveness of end-user experiences with blended physiotherapy show positive results. Blended physiotherapy was studied in a cluster-randomized trial with hip/knee osteoarthritis patients. Results showed the same effects in a blended care group as usual physiotherapy group, although a lower amount of treatment sessions were needed in the intervention group(14). In a systematic review the effect of tele rehabilitation in combination with face-to-face treatment in patients after surgery is the same as usual care in surgical populations(17). Moreover, the experiences of patients with blended care were positive while the experiences of physiotherapists were moderately positive. This moderate positivity may be explained by the fact that physiotherapists have to get used to a new treatment such as blended physiotherapy. Therefore, it is important to facilitate the implementation of blended physiotherapy as much as possible.

Despite the added values of blended physiotherapy, it is not suitable for every patient, for example patients who are not motivated. Besides if blended physiotherapy is suitable, the

ratio between the amount of therapeutic guidance and the amount of online care depends on individual characteristics and practical factors. Considering the unfamiliarity of physiotherapists with blended physiotherapy, it would be helpful to support them in their decision whether blended physiotherapists fits the patient's needs and capacities.

For this purpose, the Dutch Blended Physiotherapy Checklist (DBPC) (Appendix 1) has been developed on the basis of literature and input of experts(18). The purpose of the DBPC is to determine the suitability of blended physiotherapy for individual patients. However, the DBPC can also be used for the interpretation of the ratio between face-to-face physiotherapy and the blended component. The checklist is a tool of conversation between physiotherapist and patient, which can be used at any moment in the process of the treatment. The DBPC consists of a few necessary conditions and a few considerations. Necessary conditions are for example based on patients' motivation, safety, equipment, digital skills and health skills. Considerations are factors to indicate to which extent the patient is capable to do exercises at home and are based on self-management, time and financial factors.

However, the feasibility of the DBPC in physiotherapeutic care is not known at this moment. The purpose of this study was to investigate the feasibility of the DBPC in determining the suitability of the patient to use blended physiotherapy and to determine the ratio between face-to-face physiotherapy and the blended component for individual patients.

## **METHODS**

### Study design

The design of the study is a mixed methods study, with a sequential explanatory design which consists of a quantitative component (online questionnaire) and a qualitative component (semi-structured interviews)(19). The aim of the qualitative research is to explain quantitative results and gain deeper insight in the opinions of physiotherapists about the feasibility of the DBPC.

### Participants

For this study, physiotherapists were recruited in primary health care practices from December 2018 till March 2019. They were included if they (1) were primary care physiotherapists and (2) were using the web-based exercise programme Physitrack or prepared to start using Physitrack. No exclusion criteria were used.

### Procedure

After signing an informed consent to participate in this study, the DBPC was sent by post and an email with an instruction video was sent to the participant. Before using the DBPC, participants were asked to watch the instruction video, because it explained the content of the checklist and how physiotherapists could use them during their treatment. Then, physiotherapists used the DBPC in at least four patients over one month. The DBPC was used for determining the suitability of the patient for receiving Physitrack. Physitrack is an advanced exercise prescription and education program. If physiotherapists had used the DBPC in at least four patients, they were asked to fill in a structured online questionnaire about the feasibility of the DBPC. Afterwards, a semi-structured interview was conducted to get in-depth information of the feasibility of the DBPC.

### Feasibility

Feasibility was investigated according to the model of Bowen et al, which contains four areas of focus: demand, acceptability, implementation and integration (20). Understandability and readability were added to the areas of focus, because Bowen et al did not describe these components.

The term demand has been used to find out if physiotherapists needed a tool for determining the suitability of patients for blended physiotherapy. The acceptability of the DBPC has focused on the physiotherapists' satisfaction when using it. Implementation meant if a physiotherapist's procedure changed after having used the DBPC. The term integration has been used to describe the integration of the tool in the physiotherapist's routine. With understandability and readability is meant the comprehensibility and the fact if items and questions of the DBPC are well interpretable.



The remaining areas of feasibility from Bowen et al. namely practicality, adaption, expansion and limited efficacy were not included in this study. These areas do not have additional value to the aim of this study because the focus of this study is on the opinions of the physiotherapists and their use of the checklist.

### Quantitative data collection

A self-developed online questionnaire consisting of closed questions, statements and one question of the rating on a 10-point scale was designed to assess the feasibility of the DBPC. The questionnaire consisted of 51 questions and statements and its design was based on the areas of focus from Bowen et al. Some theses were based on the System Usability Scale (SUS). Only SUS statements that related to the area of focus were included (Appendix 2). All questions and statements were made definitively in two consensus meetings with the authors (ME, MvT, CK and CV).

### Qualitative data collection

Qualitative interviews were conducted to explain quantitative results and gain deeper insight in the opinions of physiotherapists about the feasibility of the DBPC. Participants were invited for a semi-structured interview, until data saturation was reached. If there were no important new findings to answer the research question in the last three interviews, data saturation was reached. Bowen's areas of focus were used to develop interview questions. The topic list was drafted by the author (ME) and the co-authors (MvT and CV) reviewed the list and adjusted it until consensus was reached.

### Data-analysis

#### *Quantitative data*

Participants' characteristics and outcomes from the online questionnaire were reported by means of descriptive statistics. IBM SPSS statistics for Windows (version 24, IBM corp. Armonk, NY, USA) was used for quantitative data analysis.

#### *Qualitative data*

Data collection and analysis of qualitative data was an iterative process. This means that the topic list was adapted during the process in order to explore some items deeper such as health skills. QSR NVIVO for Windows (version 12, QSR int. Doncaster, Australia) was used for transcribing audio files and open coding. Selective codes were created and classified in themes after discussion between author (ME) and co-author (MvT). Internal validation of interview results were performed by member checks. A summary of the interview was sent to each participant by e-mail. If the participant had not reacted within a week it was assumed that there were not any additions to the qualitative data. Qualitative data were used to increase and explain quantitative results. By means of the area of focus the opinions of

participants were described. In addition to this, other themes were searched for. Then a thematic description of the feasibility of the DBPC could be formed. GRAMAR guidelines were used for methodological quality.

## RESULTS

Fourteen participants have been included. Interviews were administered until data saturation was reached. Data saturation was reached after thirteen interviews. Characteristics are shown in Table 1.

<b>TABLE 1: characteristics (N=14)</b>		
<b>Age (mean (SD))</b>	30.7 (7.5)	
<b>Gender (% female)</b>	64.3	
<b>Profession (% physiotherapist)*</b>	64.3	
<b>Workexperience (number of years, SD)</b>	7.3 (7.4)	
<b>Employment relationship</b>	Self-employed	21.4%
	Employed	71.5%
	Practice owner	7.1%
<b>Worksetting</b>	Solo practice	14.3%
	Small practice (1 to 5 colleagues)	14.3%
	Large practice (10 or more colleagues )	28.5%
	Hospital or nursing home	42.9%
<b>Age target group</b>	0-25	7.1%
	26-45	28.6%
	46-65	14.3%
	66-75	14.3%
	75>	35.7%
<b>Time of using Physitrack</b>	A few weeks	64.3%
	One year	7.1%
	One year>	28.6%
<b>Are there different ways of distant care available in you practice? If not, could you state whether there are plans to start e-health within a year and/or you would like this?</b>	There are no plans and I am not interested	7.1%
	There are no definite plans but I would be in favour	14.3%
	There are plans to use e-health within a year	7.1%
	We already make use of e-health in our practice	71.4%
<b>Could you indicate which forms of e-health are used when treating your patients? Using activity trackers/sensors to monitor the way patients move</b>	Did not occur	71.4%
	Occurs sometimes	21.4%
	Occurred at least once a month	7.1%
<b>Could you indicate which forms of e-health are used when treating your patients? Websites with films to support practising at home (such as Physitrack)</b>	Did not occur	7.1%
	Occurs sometimes	50.0%
	Occurred at least once a month	14.3%
	Occurred at least once a week	7.1%
	Occurred daily	21.4%
<b>Could you indicate which forms of serious gaming are used when treating your patients? Fitness equipment attached to a computer such as a cube, functional squat or cycling ergometer</b>	Not present in our practice	64.3%
	We have the equipment, but it was not used	7.1%
	Occurred at least once a week	21.4%
	Occurred daily	7.1%

\*The remaining number consists of exercise therapists. In the Netherlands, their working method is almost the same as Physiotherapists.  
SD, standard deviation

All outcomes of the questionnaire are presented in Appendix 2.

The majority of participants (85.7%) indicate that they are reasonably to very enthusiastic about e-health applications within physiotherapy, whereas only 28.6% of the participants used Physitrack for more than one year. A small majority (57.1%) integrated Physitrack in their face-to-face treatment, which means that physiotherapists consider exercises from Physitrack with their patients. Other physiotherapists used Physitrack as a detached addition to their treatment.

Results for some areas of focus: demand and implementation were subdivided into two groups that used blended physiotherapy: short-term users and long-term users. Long-term users are physiotherapists who had given blended physiotherapy for one year or longer.

### Demand

In this area of focus, the need for a tool like the DBPC is described. A small majority of participants (57.1%) stated that they did not have a need for a tool like the DBPC before using it. Only 7.1% of the participants stated that they had a need for a tool when determining the suitability for blended physiotherapy. In addition, it appeared in interviews that a lot of participants, who had used blended physiotherapy for a short period, had no need for a tool: *"No, actually I did not need it because I did not know about this tool, so I did not miss it."* However, one participant stated that he was searching how to introduce blended physiotherapy sooner in the treatment process. Moreover, a few participants who gave blended therapy for longer than one year stated that *"I had no need for this tool, because my own treatment procedure for determining suitability was sufficient."*

### Acceptability

With acceptability is meant the physiotherapist's satisfaction when using the DBPC. In general, participants are relatively positive about the use of the DBPC. A lot of participants reported their satisfaction when using the DBPC: *"I think the DBPC is clear, smart and quick"*. Most participants (71.4%) stated that the DBPC is reasonably feasible to very feasible in determining suitability of patients for blended physiotherapy. 64.3% of the participants noticed that the time it takes using the DBPC is worth it. Interviews showed a few participants declared that the DBPC consists of just one A-4 form and that is easy to use. A small majority (57.1%) of participants declared that they would recommend the DBPC to their colleagues: *"The DBPC would have an added value for every primary health care physiotherapist who has an interest for blended physiotherapy."*

## Implementation

Implementation describes the possible change in treatment procedure when using the DBPC. Half of the group of participants (50.0%) reported in the online questionnaire that they would not change their treatment procedure in determining suitability for blended physiotherapy and 14.3% of the participants did not know if they would change their treatment procedure. It was remarkable that 35.7% of the participants noticed that they would change their treatment procedure. This result contrasted with the interviews, because a lot of short-term users stated that they would use the DBPC. 57.1% of the participants stated that they would use the DBPC by heart in future because of the learning effect: *"The first time, I used the DBPC for determining the suitability and now I know all items of the DBPC, so, I can estimate if the patient is suitable for blended physiotherapy and do this by heart. When I doubt about the suitability for a specific patient I can take the DBPC out of my desk drawer to see if there are items on the DBPC I have forgotten."* Long-term users reported that they did not experience an additional value for using the DBPC in the future, because they noticed that they already knew all criteria for determining the suitability for blended physiotherapy.

## Integration

Integration means the way in which the DBPC could be integrated in the usual treatment procedure of physiotherapists. A lot of participants (85.7%) stated that the DBPC could be integrated 'very easily' to 'easily' in their usual treatment procedure. One participant reported: *"I should use the DBPC much more, because I will then make myself familiar with the DBPC in the future."* Another participant remarked: *"The DBPC makes me aware of blended physiotherapy and I want to use it much more in the future."*

## Understandability and readability

Bowen et al did not describe understandability and readability as areas of focus. These subjects were added to the areas of focus, because these occurred from both data analyses. Participants indicated that it was easy to use separate items from part A of the DBPC: the necessary conditions. This part consists of items for determining the suitability for blended physiotherapy. However, 7.1% of the participants noticed that the digital skills and health skills were difficult items to understand. A lot of participants stated in interviews: *"It is easy to use the first part of the checklist about necessary conditions for blended physiotherapy, because the only possible answer was yes or no. Moreover, I could understand all items of this part."* This outcome was the opposite of the use of items of part B: the considerations. Part B describes items for the interpretation of the ratio between face-to-face physiotherapy and the blended component. 21.4% of all participants stated 'neutral' to use of considerations and 7.1% reported 'difficult'. Participants remarked, in particular, the financial factors as 'difficult' (7.1%) to 'very difficult' (7.1%) to interpret. This result was similar to outcomes of one of the interviews: *"I did not understand what was meant with the financial factors."* 21.4% noticed that there was no additional value of any of both parts. However, participants were less

convinced about the use of the considerations, because 14.3% of the participants did not know if this part had an additional value in the DBPC, whereas 7.1% of the participants did not know if part A had an additional value. Finally, most participants stated that the instructions about part A and part B, items and questions below the items were well readable: "The DBPC was clear and written in understandable Dutch." Outcomes on all areas of focus were summarized and described in table 2.

<b>TABLE 2: quantitative and qualitative results</b>		
<b>Demand</b>	<b>Quantitative</b>	<b>Qualitative</b>
	<u>Did you come across problems when determining the suitability of patients for blended physiotherapy, before you started this research?</u>  Yes, a little 7.1% No, not really 50.0% No, absolutely not 7.1% I do not know 35.7%	'Before participating in this research, I did not need a specific tool because my line of reasoning about the suitability for blended physiotherapy was sufficient.'
<b>Acceptability</b>	Average rating of the DBPC: 7	"I am glad that the checklist helped me through the items."
<b>Implementation</b>	<u>Is it your intention to keep on using the DBPC in the near future?</u> Yes, I will take the CBF and look at it 14.3% Yes, but I do not have to look het it, I know it by heart 57.1% No 21.4% I do not know yet 7.1%	"In the future, I would only use the DBPC on a A-4 form when I am in doubt about the suitability for a specific patient."
<b>Integration</b>	<u>Do you think the DBPC can be integrated in your present way of giving therapy?</u> Very easy 21.4% Easy 64.3% Neutral 7.1% Difficult 7.1%	"If I think about blended physiotherapy, the DBPC is automatically part of it."
<b>Understandability and readability</b>	<u>Did you think A. Necessary conditions useful considering the complete CBF?</u> Yes, absolutely sure 28.6% Yes, partly 50.0% No, I am not convinced 21.4%  <u>Did you think part B. of Considerations useful considering the complete CBF?</u> Yes, absolutely sure 14.3% Yes, partly 50.0% No, I am not convinced 21.4% I do not know 14.3%	"The necessary conditions were clear, but the considerations, like financial factors, were not understandable."

## Qualitative results

Besides all findings on the prescribed areas of focus, the analysis of the qualitative transcripts resulted in three themes: efficiency, innovation and change of behaviour. Each theme is described with illustrative quotes of participants.

### *Efficiency*

This theme captures participants' experiences about the efficiency the DBPC brought about. A lot of participants stated that they could work more efficiently and functionally, because of the short time in which the DBPC is used. One participant remarked: "If you use the DBPC for any and every patient, you do not have any selection at all. This means that you invest a lot of time in something that does not bring any returns. A checklist would prevent this. It makes that you really know if someone is suitable or not." Another participant remarked almost the same: "The DBPC is a good tool when filtering for suitability. You will have most chance you will succeed."

### *Innovation*

Participants reported a few issues about the innovation brought about by the DBPC. A number of participants reported about the DBPC that it was very important to them that determining the suitability of the DBPC could be done on one A-4 form: "The items on the DBPC were not new for me, but all items were described on one A-4 form and that was innovative." They called the DBPC a "skilful tool when determining blended physiotherapy." Beside this, the DBPC could support participants to use blended physiotherapy. Short-term users, in particular, reported that they would use more blended physiotherapy in future, because they used the DBPC. Long-term users reported they would determine the suitability for blended physiotherapy according to their current treatment procedure. They only see an added value to introduce the DBPC for physiotherapists who want to use blended physiotherapy. Long-term users also suggested that it would be innovative "to implement the DBPC in a broader way, it should be integrated in the Electronic Client Dossier (ECD) of the physiotherapist. Then the physiotherapist always checks the suitability for blended physiotherapy and the new treatment procedure sinks in."

### *Change in behaviour*

Change in behaviour means the change of treatment procedure from face-to-face physiotherapy to use more blended physiotherapy. The majority of physiotherapists did not use blended physiotherapy before participating in this study. A lot of participants reported that the use of the DBPC helped them to make the change from face-to-face physiotherapy to use more blended physiotherapy easier. Some participants stated: "The DBPC made it easier to treat in a more blended way. However, to use more blended physiotherapy, I will have to use the DBPC more frequently."

## DISCUSSION

To support primary care physiotherapists in using blended physiotherapy there is a tool to determine patients' suitability for this kind of physiotherapy: this mixed methods study describes the feasibility of this tool (DBPC). Interviews with physiotherapists and the feasibility questionnaire revealed that the DBPC improved the allocation of blended physiotherapy in an efficient and purposeful way. The DBPC seemed most feasible for physiotherapists who had not used blended physiotherapy at all or physiotherapists who had only done so for a short period. Apparently a learning effect occurs after having used the DBPC for a longer period and physiotherapists do not need the DBPC anymore then. This result is equivalent to the use of guidelines: after having used them a few times, physiotherapists can utilize the guideline without needing instructions(21).

However, the DBPC was not of added value for its second objective, namely the determination of the ratio between face-to-face physiotherapy and the blended component. Physiotherapists thought that they could determine the ratio by themselves. Moreover, the DBPC does not give any advice how to determine the ratio. The question is if the ratio is not substantiated too fast. It is possibly better to focus first on the allocation of blended physiotherapy and on the experience of physiotherapists with the DBPC.

It appears that few physiotherapists have experience with and/or knowledge of blended physiotherapy. This is also the case for other healthcare professionals(22,23). Physiotherapists must get used to this new form of treatment(24). This fact played a role in this study too, because a large proportion of participating physiotherapists were new users.

Considering the results of this study, the DBPC could support physiotherapists in using and implementing blended physiotherapy. A condition for the implementation of the DBPC is that there is a need for a tool. Grol et al. described that a good implementation depends on orientation and understanding of the system(25). It is essential that physiotherapists have an awareness for blended physiotherapy and that they want to see the added value to use blended care. This study has shown that the use of the DBPC made physiotherapists more aware.

This is probably the first study in which a tool to determine suitability for blended physiotherapy and the ratio between face-to-face physiotherapy and the blended component for individual patients was used and evaluated. Several weaknesses have also been recognised. First, a small group of physiotherapists used blended physiotherapy for a longer period; a much bigger group consisted of physiotherapists who had only just started using blended physiotherapy. The first group is underexposed in this study. Second, the blended component was executed only by means of Physitrack. Third, there was no check in this study if the blended physiotherapy used actually matched the patient. Finally, the study investigator did not know how the participants exactly used the DBPC. Participants actually only saw a short instruction video.



This study also has some strengths. Analysis of qualitative-data was done by two investigators independently. The main strength, however, is the mixed method design which combined data-analysis of the quantitative data and qualitative data. This might yield more innovative feasibility results(20).

Implementation of the DBPC might support the implementation of blended physiotherapy in the future because the DBPC could help the physiotherapist in determining the suitability for blended physiotherapy. Because it was not known how physiotherapists used the DBPC, further research will have to produce more information about how to use the DBPC and various possibilities about the use of e.g. instruction on paper, e-learning and apps. Participants concluded that they could work more efficiently when determining the suitability for blended physiotherapy, but they suggested that if the DBPC is improved it is essential to integrate the checklist in an ECD. Moreover, it is important to take the outcome seriously when personalising physiotherapeutic care. Besides, it is essential to stratify when the mode of delivery leads to a more effective physiotherapeutic treatment. Finally, it is recommendable that the DBPC will have to be used in a variety of e-health applications.

## **CONCLUSION**

In general, physiotherapists were positive about the feasibility of the DBPC in primary physiotherapeutic care. The DBPC helped them to determine the suitability of a patient for blended physiotherapy. However, the DBPC was not used for interpretation of the ratio between face-to-face physiotherapy and the blended component. By means of the DBPC, physiotherapeutic care will become more efficient, because the treatment procedure was personalised and not everyone can receive blended physiotherapy. Early in the treatment, the physiotherapist could estimate the suitability of the patient for blended physiotherapy. Because of this, physiotherapists could work more efficiently. The DBPC seemed most feasible for physiotherapists who did not use blended physiotherapy prior to participation in this study and physiotherapists with the intention to provide blended physiotherapy. Both groups did not treat in a blended way before and should therefore experience the most added value of the DBPC.

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## APPENDIX 1

### Dutch Blended Physiotherapy Checklist

#### A. Noodzakelijke voorwaarden voor de inzet van blended fysiotherapie

*n.b. indien u één of meer van de onderstaande vragen met nee beantwoordt, is de patiënt niet geschikt voor een blended behandeling*

1. Is de patiënt gemotiveerd om een blended behandeling te ontvangen?  
*(denk aan: acceptatie, positieve houding en overtuiging van toegevoegde waarde digitale toepassing)*
2. Is het medisch gezien verantwoord om de patiënt een deel van de behandeling onbegeleid, op afstand, te laten oefenen?  
*(denk aan: fysieke mogelijkheden van de patiënt, contra-indicaties om zelfstandig te trainen en daaraan gekoppelde veiligheid)*
3. Heeft de patiënt de benodigde (digitale) middelen?  
*(denk aan: smartphone/tablet/pc, internetverbinding, adequate oefenomgeving)*
4. Kan de patiënt adequaat met deze digitale middelen omgaan?  
*(denk aan: app downloaden, verbinding maken met internet en account aanmaken)*
5. Is de patiënt in staat tekst-, video- en audio-informatie juist te interpreteren die in de digitale toepassing wordt gepresenteerd?  
*(denk aan: gezondheidsvaardigheden, taal en cognitie)*

#### B. Overwegingen die blended fysiotherapie kunnen beïnvloeden

*n.b. onderstaande factoren zijn van invloed op de inrichting van de blended behandeling. Bevorderende factoren geven aan dat u de patiënt mogelijk wat meer thuis kunt laten doen*

5. Bespreek de mate waarin de patiënt zelfstandig buiten de praktijk aan de slag kan gaan met de digitale toepassing.  
*(denk aan: zelfmanagement, verantwoordelijkheid, inzicht en betrokkenheid)*
6. Bespreek of de tijdsinvestering voor een behandeltraject een probleem is voor de patiënt.  
*(denk aan: patiënt heeft beperkte tijd beschikbaar of kan niet onafhankelijk reizen)*
7. Bespreek of er met financiële factoren rekening gehouden moet worden.  
*(denk aan: patiënt is beperkt verzekerd, kan niet te veel reiskosten maken en kosten digitale toepassing)*

## APPENDIX 2

<b>TABLE 4 : results quantitative questionnaire</b>	
My attitude towards e-health devices in physiotherapy could be described as:	<ul style="list-style-type: none"> <li>- I am still looking how to use e-health 14.3%</li> <li>- I am reasonably enthusiastic 57.1%</li> <li>- I am very enthusiastic 28.6%</li> </ul>
Are there different ways of distant care available in your practice? If not, could you state whether there are plans to start e-health within a year and/or you would like this?	<ul style="list-style-type: none"> <li>-There are no plans and I am not interested 7.1%</li> <li>-There are no definite plans but I would be in favour 14.3%</li> <li>-There are plans to use e-health within a year 7,1%</li> <li>-We already make use of e-health in our practice 71.4%</li> </ul>
Could you indicate which forms of e-health are used when treating your patients? - Using activity trackers/sensors to monitor the way patients move	<ul style="list-style-type: none"> <li>- Did not occur 71.4%</li> <li>- Occurs sometimes 21.4%</li> <li>- Occurred at least once a month 7.1%</li> </ul>
Could you indicate which forms of e-health are used when treating your patients? - Websites with films to support practising at home (such as Physitrack)	<ul style="list-style-type: none"> <li>- Did not occur 7.1%</li> <li>- Occurs sometimes 50.0%</li> <li>- Occurred at least once a month 14.3%</li> <li>- Occurred at least once a week 7.1%</li> <li>- Occurred daily 21.4%</li> </ul>
Could you indicate which forms of serious gaming are used when treating your patients? - Game computers (e.g. Nintendo Wii)	<ul style="list-style-type: none"> <li>- Not present in our practice 57.1%</li> <li>- Occurs sometimes 21.4%</li> <li>- Occurred at least once a month 14.3%</li> <li>- Occurred at least once a week 7.1%</li> </ul>
Could you indicate which forms of serious gaming are used when treating your patients? - Fitness equipment attached to a computer such as a cube, functional squat or cycling ergometer	<ul style="list-style-type: none"> <li>- Not present in our practice 64.3%</li> <li>- We have the equipment, but it was not used 7.1%</li> <li>- Occurred at least once a week 21.4%</li> <li>- Occurred daily 7.1%</li> </ul>
Could you indicate which forms of serious gaming are used when treating your patients? - Virtual reality	<ul style="list-style-type: none"> <li>- Not present in our practice 100.0%</li> </ul>
Could you indicate which forms of serious gaming are used when treating your patients? -Augmented Reality (such as a treadmill on which obstacles are projected)	<ul style="list-style-type: none"> <li>- Not present in our practice 100.0%</li> </ul>
For how long have you made use of Physitrack?	<ul style="list-style-type: none"> <li>- A few weeks 64.3%</li> <li>- One year 7.1%</li> <li>- More than a year 28.6%</li> </ul>

How have you used Physitrack in your treatment	<ul style="list-style-type: none"> <li>- I have used Physitrack as addition to my treatment. I did not react to the results I got from Physitrack 42.9%</li> <li>- I have integrated Physitrack in my face to face treatment to improve this treatment 57.1%</li> </ul>
Did you treat your patients with blended physiotherapy before you entered this research?	<ul style="list-style-type: none"> <li>-Yes 35.7%</li> <li>-No 64.3%</li> </ul>
How important do you think the DBPC is to support you in the choice for blended physiotherapy?	<ul style="list-style-type: none"> <li>- Not important 14.3%</li> <li>- Somewhat important 14.3%</li> <li>- Reasonably important 42.9%</li> <li>- Important 21.4%</li> <li>- Very important 7.1%</li> </ul>
Have you been inclined to offer the DBPC since you used this list sooner than when you did not use it yet?	<ul style="list-style-type: none"> <li>- Do not know/not convinced 35.7%</li> <li>- Yes 21.4%</li> <li>- No 42.9%</li> </ul>
Did you come across problems when determining the suitability of patients for blended physiotherapy, before you started this research?	<ul style="list-style-type: none"> <li>- I do not know 35.7%</li> <li>- Yes, a little 7.1%</li> <li>- No, not really 50.0%</li> <li>- No, absolutely not 7.1%</li> </ul>
For how many patients have you used the DBPC?	<ul style="list-style-type: none"> <li>- 0-4 50.0%</li> <li>- 5-10 50.0%</li> </ul>
Do you think that using the DBPC contributes to determining whether a patient is suitable for them?	<ul style="list-style-type: none"> <li>- I do not know 7.1%</li> <li>- Yes, a little 57.1%</li> <li>- Yes, very much 14.3%</li> <li>- No, I am not convinced 21.4%</li> </ul>
Is it your intention to keep on using the DBPC in the near future?	<ul style="list-style-type: none"> <li>- I do not know yet 7.1%</li> <li>- Yes, I will take the CBF and look at it 14.3%</li> <li>- Yes, but I do not have to look het it, I know it by heart 57.1%</li> <li>- No 21.4%</li> </ul>
Do you think that the time and trouble that using the DBPC costs are worth the results?	<ul style="list-style-type: none"> <li>- I do not know 21.4%</li> <li>- Yes 50.0%</li> <li>- Yes, absolutely sure 14.3%</li> <li>- No, I am not convinced 14.3%</li> </ul>
Has anything changed in your way of working because of the DBPC?	<ul style="list-style-type: none"> <li>- I do not know 14.3%</li> <li>- Yes, partly 28.6%</li> <li>- Yes, absolutely sure 7.1%</li> <li>- No, I am not convinced 35.7%</li> <li>- No, absolutely not 14.3%</li> </ul>

What did you think about filling in the Necessary conditions item 'motivation'?	- Very easy 28.6% - Easy 71.4%
What did you think about filling in the Necessary conditions item 'safety'?	- Very easy 28.6% - Easy 64.3% - Neutral 7.1%
What did you think about filling in the Necessary conditions item 'digital applications'?	- Very easy 64.3% - Easy 35.7%
What did you think about filling in the Necessary conditions item 'digital skills'?	- Very easy 21.4% - Easy 57.1% - Neutral 14.3% - Difficult 7.1%
What did you think about filling in the Necessary conditions item 'health skills'?	- Very easy 7.1% - Easy 64.3% - Neutral 21.4% - Difficult 7.1%
What did you think about filling in part A. Necessary conditions as a whole?	- Very easy 14.3% - Easy 85.7%
Did you think A. Necessary conditions useful considering the complete CBF?	- Yes, partly 50.0% - Yes, absolutely sure 28.6% - No, I am not convinced 21.4%
What did you think about the explanation on the part A. Necessary conditions?	- Somewhat important 7.1% - Reasonably important 7.1% - Important 78.6% - Not important 7.1%
Did you think the explanation on part A Necessary conditions useful?	- I do not know 14.3% - Yes, partly 21.4% - Yes, absolutely sure 50.0% - No, I am not convinced 14.3%
What did you think about filling in the item about Considerations 'self-management skills'?	- Very easy 7.1% - Easy 64.3% - Neutral 28.6%
What did you think about filling in the item about Considerations 'time available'?	- Very easy 14.3% - Easy 57.1% - Neutral 21.4% - Difficult 7.1%
What did you think about filling in the item about Considerations 'financial factors'?	- Very easy 7.1% - Easy 50.0% - Neutral 28.6% - Difficult 7.1% - Very difficult/impossible 7.1%
What did you think about filling in part B. in considerations as a whole?	- Very easy 7.1% - Easy 64.3%



	<ul style="list-style-type: none"> <li>- Neutral 21.4%</li> <li>- Difficult 7.1%</li> </ul>
Did you think part B. of Considerations useful considering the complete CBF?	<ul style="list-style-type: none"> <li>- I do not know 14.3%</li> <li>- Yes, partly 50.0%</li> <li>- Yes, absolutely sure 14.3%</li> <li>- No, I am not convinced 21.4%</li> </ul>
What did you think about the explanation on part B. Considerations?	<ul style="list-style-type: none"> <li>- A little important 14.3%</li> <li>- Reasonably important 14.3%</li> <li>- Important 50.0%</li> <li>- Very important 14.3%</li> <li>- Not important 7.1%</li> </ul>
Did you think the explanation of part B. Considerations useful?	<ul style="list-style-type: none"> <li>- I do not know 14.3%</li> <li>- Yes, partly 35.7%</li> <li>- Yes, absolutely sure 28.6%</li> <li>- No, I am not convinced 21.4%</li> </ul>
Do you think the DBPC can be integrated in your present way of giving therapy?	<ul style="list-style-type: none"> <li>- Very easy 21.4%</li> <li>- Easy 64.3%</li> <li>- Neutral 7.1%</li> <li>- Difficult 7.1%</li> </ul>
Do you think you can determine the right moment in the treatment process to start the DBPC?	<ul style="list-style-type: none"> <li>- Very easy 14.3%</li> <li>- Easy 57.1%</li> <li>- Neutral 28.6%</li> </ul>
Does the way of working with the DBPC match the views of your practice?	<ul style="list-style-type: none"> <li>- Very easy 21.4%</li> <li>- Easy 50.0%</li> <li>- Neutral 28.6%</li> </ul>
I think the DBPC is easy to use.	<ul style="list-style-type: none"> <li>- Absolutely agree 28.6%</li> <li>- Agree 64.3%</li> <li>- Neutral 7.1%</li> </ul>
I think I would like to use the DBPC more often.	<ul style="list-style-type: none"> <li>- Absolutely agree 7.1%</li> <li>- Agree 28.6%</li> <li>- Neutral 35.7%</li> <li>- Disagree 21.4%</li> <li>- Absolutely disagree 7.1%</li> </ul>
I would recommend the DBPC to my immediate colleagues.	<ul style="list-style-type: none"> <li>- Absolutely agree 7.1%</li> <li>- Agree 50.0%</li> <li>- Neutral 35.7%</li> <li>- Disagree 7.1%</li> </ul>
What mark would you give the DBPC? (mean, SD)	7(0,87)

*SD, standard deviation*