

# Digital tools as parental support – how should they be provided to meet the needs of expecting and new parents?

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## Plain English summary of protocol

### Background and study aims

In recent years, it has become more and more common for expecting parents to turn to digital sources for health information. Overall, there is a rapid development of advanced technology within society, and research shows that humans are finding that the rapid integration of digital technology affects both their personal and professional lives. The access to digital tools for parents is increasing, and further exploration is needed to gain knowledge about parents' experiences from using such tools when preparing for childbirth and parenthood, for example. This study will explore serious games as digital tools for parental support, and both the parents' and healthcare professionals' views will be included. The aims of the study are to explore two different serious games: (1) the 'Childbirth Journey' (Swedish: 'Förlossningsresan') relating to pregnancy, childbirth and parenthood; and (2) 'Interplay' (Swedish: 'Samspel') relating to the parental relationship and parenthood.

### Who can participate?

Expecting and new parents in a county within the south-west of Sweden (A & B); healthcare professionals at antenatal units and in family counselling in a county within the south-west of Sweden (C); expecting and new parents in all of Sweden (D)

### What does the study involve?

This is an intervention study that includes exploration of two different serious games: (1) Childbirth Journey, and (2) Interplay. The study includes four different sub-studies (A-D) with both qualitative and quantitative methods and longitudinal design.

### What are the possible benefits and risks of participating?

Interventions included in this study are considered low-risk. A few expected negative experiences for the participants may become relevant. These may relate to usage of the serious games, problematic experiences with the technology, negative feelings about one's couple relationship with the partner (study B & D), or insufficient support for the upcoming labor and parenthood. The use of the applications may, on the other hand, lead to positive effects to participants' feelings of being able to handle childbirth, parenthood or their relationship with

their partner (study A, B & D). For example, expecting parents may perceive the interventions (the Childbirth Journey and Interplay) as trustworthy since they are controlled and provided by healthcare professionals. Negative side effects such as disappointment with participant drop-outs are to be examined and the researchers will assess the experiences of the participants.

Where does the study run from?  
University of Skövde (Sweden)

When is the study starting and how long is it expected to run for?  
March 2020 to December 2024

Who is funding the study?  
University of Skövde (Sweden)

Who is the main contact?  
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## Contact information

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## **Additional identifiers**

### **Protocol serial number**

01/10/2020

## **Study information**

### **Scientific Title**

Digital tools as parental support – how should they be provided to meet the needs of expecting and new parents? An interventional study with both qualitative and quantitative methods and a longitudinal design

### **Study objectives**

The objectives of the proposed study are to explore two different serious games: (1) the 'Childbirth Journey' (Swedish: 'Förlossningsresan') relating to pregnancy, childbirth and parenthood; and (2) 'Interplay' (Swedish: 'Samspel') relating to parental couple relationship and parenthood, as well as to:

1. Explore parents' experiences from and user behavior in Childbirth Journey (Study A).
2. Explore parents' experiences from and user behavior in Interplay (Study B).
3. Explore healthcare professionals' experiences in Childbirth Journey and Interplay (Study C).
4. Explore parents' user behavior over time and individual sessions in Interplay, as well as associated factors between parents' user behavior and experiences from Interplay and their perceived quality of parental couple relationship, social support, and sense of coherence (Study D).

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Approved 16/06/2020, Swedish Ethical Review Authority (Etikprövningsmyndigheten, Box 2110, 750 02, Uppsala, Sweden; +46 10-475 08 00; [registrator@etikprovning.se](mailto:registrator@etikprovning.se)), ref: 2020-01689

### **Study design**

Interventional study that includes four different sub-studies (A-D) with both qualitative and quantitative methods and longitudinal design

### **Primary study design**

Observational

### **Study type(s)**

Other

### **Health condition(s) or problem(s) studied**

Sense of coherence, perceived quality of parental couple relationship, social support

## **Interventions**

For the interventions, two different serious games are to be explored: (1) Childbirth Journey, and (2) Interplay. All participants will receive one of the two serious games, depending on which part of the study they participate within. Participants within study A and C will receive the Childbirth Journey and participants within study B, C and D will receive Interplay.

For the proposed study, the researchers will collect data through interviews (A-C) as well as repeated web-based questionnaires (D). Interviews will be held when the participants have had access to the intervention (the Childbirth Journey or Interplay) for approximately 2 weeks. Within study D, participants will complete a web-based questionnaire at baseline (Q1), before receiving the intervention. Another web-based questionnaire (Q2) will be sent to the participants 6 months after Q1.

## **Intervention Type**

Other

## **Primary outcome(s)**

Qualitative outcomes (study A-C):

1. Parents' experiences from and user behaviour in Childbirth Journey (A)

2. Parents' experiences from and user behaviour in Interplay (B)

3. Healthcare professionals' experiences in Childbirth Journey and Interplay (C)

Qualitative data from interviews with parents and professionals will be collected two weeks after they received the intervention. The qualitative data from interviews with parents and professionals will be

analyzed using phenomenography (Sjöström & Dahlgren, 2002) and content analysis (Graneheim, Lindgren, & Lundman, 2017).

Quantitative outcomes (study D) collected at baseline (T1) and six months after (T2):

1. Sense of coherence measured using the SOC-13

2. Social support measured using the Multidimensional Perceived Social Support Scale (MSPSS)

3. Quality of the parental couple relationship measured using the Quality of dyadic relationship scale QDR 36

## **Key secondary outcome(s)**

There are no secondary outcome measures

## **Completion date**

21/12/2024

## **Eligibility**

### **Key inclusion criteria**

1. Expecting and new parents within the study setting (A & B)

2. Healthcare professionals at antenatal units and within family counselling within the study setting (C)

3. Expecting and new parents within Sweden (D)

### **Participant type(s)**

Mixed

### **Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Total final enrolment**

0

**Key exclusion criteria**

1. Parents with a lack of ability in speaking, reading or understanding Swedish (B & D) or English language (A)
2. Parents or healthcare professionals who do not have access to mobile phones that enable the digital parental support to be used (B & C: Intervention Interplay & D)
3. Parents or professionals with severe visual impairment or other physical disorder that would prevent them to use touch feature on mobile phones (B & C: Intervention Interplay & D)
4. Single parents or parental couples in which only one of the parents agrees to participate (B & D)

**Date of first enrolment**

01/06/2020

**Date of final enrolment**

31/12/2023

**Locations****Countries of recruitment**

Sweden

**Study participating centre**

Skaraborg Hospital Skövde

Labor and postnatal ward

BB-Skövde

Skövde

Sweden

54128

**Sponsor information****Organisation**

University of Skövde

ROR

<https://ror.org/051mrsz47>

## Funder(s)

### Funder type

University/education

### Funder Name

Högskolan i Skövde

## Results and Publications

### Individual participant data (IPD) sharing plan

### IPD sharing plan summary

Not expected to be made available

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>		24/11/2021	14/12/2021	Yes	No
<a href="#">Protocol article</a>	qualitative study	01/12/2025	02/12/2025	Yes	No