THURSDAY NOVEMBER 20, 2019  (pre-conference educational day)

08:30-09:00  Registration and welcome

**Workshop 1, Implementation science and eHealth (working title=**

**Faculty:**
- **Dr. Bart van den Bemt**, PhD, RPh (UMC St Radboud, Netherlands),
- **Prof. Dr. Leah Zullig**, PhD, MPH,(Duke University and Durham Veterans Affairs Centre for Health Services Research in Primary Care, USA)
- **Prof. Dr. Sabina De Geest**, PhD, RN (University of Basel, Switzerland & KU Leuven, Belgium)
- **Lynn Leppla**, MSN, RN (University of Basel, Switzerland & University Hospitals Freiburg im Breisgau, Germany)

**Introduction:**
The 2019 ESPACOMP annual meeting in Porto will be preceded by a day-long workshop addressing the intersection of implementation science and e-Health. Building upon prior ESPACOMP implementation science workshops, the goal of this advanced workshop is to delve deeply into how implementation science can inform intervention development and delivery of e-health interventions with the goal of creating programs that can be adapted to local context, disseminated or translated to other settings, and sustained over time. To accomplish this goal, we will use the example of the SMIle project (Development and Testing of an Integrated Model of Care in the Continuum of Allogeneic Hematopoietic SteM Cell Transplantation facilitated by eHealth). Balancing theoretical discussion, and practical hands-on learning, this workshop will be comprised of interactive presentations, group work, and discussion. The workshop will be facilitated by Bart van den Bemt(Netherlands), Sabina De Geest (Switzerland & Belgium), Leah Zullig (USA), and Lynn Leppla (Switzerland & Germany).

**Learning objectives:**
- To discuss methodological approaches for developing an eHealth application based on user centered design
- To review theoretical underpinnings and methodological approaches for developing, implementing and evaluating an eHealth application for real world settings

**Learning methods:**
Interactive presentations; case study analysis; critical reflection; discussion; small group work.

**Case studies**
This year’s case study will build on the SMIle study (Development and Testing of an Integrated Model of Care in the Continuum of Allogeneic Hematopoietic SteM Cell Transplantation facilitated by eHealth).
Transplantation (HSCT) facilitated by eHealth). HSCT care is challenged by two major issues: (1) the increase in the number of long-term survivors; and (2) the need for an integrated care model that addresses not only biomedical but also behavioral and psychosocial dimensions of HSCT care over a longer period. A recent Swiss matched control study in HSCT survivors highlighted that survivors experience problems executing several health-enhancing behaviors, warranting corrective interventions. Screening and prevention of post-transplantation late effects is recommended; yet reducing progression and occurrence of co-morbidities will depend on patients engaging in self-management behaviors—for which patients need support. However, because of shortages of time and resources, the prevailing current HSCT follow-up systems are neither prepared nor powered for an integrated model of care. Information on variability of practice patterns in view of HSCT patients’ long-term follow-up care—especially in view of levels of chronic illness management—would be helpful to identify gaps more precisely. Moreover, reengineering the follow-up care of patients in HSCT centers using principles of chronic illness management powered by eHealth technology will very likely enhance quality of care and provide opportunities for more optimal long-term HSCT care delivery. The SMILE project addresses both of these elements and has the potential to truly innovate the HSCT follow-up care. Indeed, the SMILe prototype, an eHealth-powered integrated care model for follow-up of patients after HSCT, introduces a new model of HSCT care. Conceptualized on the principles of Chronic Care Model, the SMILe prototype realizes a continuous feedback loop of information (e.g., linking medical parameters, symptom burden, and health behaviors) between the home health setting and the HSCT center, as well as the delivery of specific intervention bundles (e.g., support for self-management). While this SMILe prototype is being developed for the HSCT population, it can also function and be adapted and implemented in other chronically ill populations, especially solid organ transplantation. Indeed, the SMILe prototype’s methodology and modular structure—including several intervention bundles relevant for all chronically ill groups (e.g., physical activity, medication adherence)—facilitates adaptation and subsequent implementation in a broad range of settings.

Background: Allogeneic Hematopoietic Stem Cell Transplantation (HSCT) follow-up care is challenged by an increasing number of long-term survivors. Given the high risk for the occurrence for Graft versus Host Disease (GvHD) and other co-morbidities after HSCT, the HSCT setting would benefit from an Integrated Model of Care in Long-Term Follow-Up after Allogeneic Hematopoietic SteM Cell Transplantation facilitated by eHealth Technology (SMILe). Based on the principles of chronic illness management, such a novel model of care has the potential to 1) improve the continuity of HSCT care; 2) address not only the biomedical but also the self-management and psychosocial dimensions of HSTC follow-up care; and 3) bring needed innovation to enhance clinical outcomes and increase transplant centers’ capacity. The latter has been put forward in a recent NIH report and statements by
the American Society of Hematology. Before implementing an eHealth-powered model of care a good understanding of practice patterns and context of HSCT follow-up care and the level of technology openness of HSCT patients and clinicians is needed.

Aims:
1. To identify practice patterns and context of HSCT follow-up care with special focus on chronic illness management and to assess technology openness of HSCT patients and clinicians in the departments of hematology, oncology and stem cell transplantation Freiburg (Germany), Basel, Zurich and Geneva (Switzerland).
2. To develop a SMILe-Prototype (Integrated Model of Care in Long-Term Follow-Up after Allogeneic Hematopoietic SteM Cell Transplantation faciliTated by eHealth Technology-Prototype).
3. To develop implementation strategies in parallel to the prototype development as a basis for future implementation of the SMILe care model in other HSCT centres.
4. (a) To test the SMILe-prototype in view of health care utilization (primary outcome), treatment burden, medication adherence, GvHD episodes, and survival (secondary outcomes) in the first year after HSCT as well as to evaluate the acceptability, feasibility, adoptability and fidelity of the SMILe-prototype

Design/Methods: We use a Type 1 Mixed Methods Effectiveness Implementation Hybrid Design. This latter methodological approach combines evaluation of clinical effectiveness with attention for implementation strategies in order to speed the translation of research findings in clinical practice (4) consisting of the following three parts. Aim 1 and 2 use an explanatory sequential mixed method design (combination survey design & focus groups) previously developed by our research group for contextual mapping of practice patterns in view of chronic illness management (BRIGHT study) and technology assessment in end-users (PICASSO-Tx (KU Leuven)). Aim 3: Information’s gathered in phase one will inform the SMILe prototype as well as the development of implementation strategies. Aim 4: After development of the SMILe prototype (theory based intervention development, user-centered design), it will be tested by an RCT design. A consecutive sample of 70 adult HSCT patients per center will be randomized. Outcomes will be assessed using established instruments. Data analysis will be based on principles of Intention-To-Treat (ITT) and Per-Protocol (PP) analysis. Information on the delivery/implementaiton of the SMILe-prototype in view of the acceptability, feasibility, adoptability and fidelity and implementation strategy will be assessed in all stakeholders using mixed methods.

Bibliography:
Participants must be well prepared in order to get the maximum benefit from the workshop. A limited list of journal articles and workshop case studies (mandatory reading) will be sent to participants approximately one month prior to the meeting.

Maximum number of participants: 50
**Requirements for participation:** Experience in the design of formal implementation & dissemination strategies, and/or testing of adherence interventions. Knowledge in behavioural theory and interventions. Reading of preparatory materials.

All participants need to print out the materials themselves. Hard copies will not be provided at the conference!

**PROGRAM WORKSHOP 1**

We will start with a short review of important aspects in the development, implementation and evaluation of large system, scalable adherence interventions. The main topic of the workshop will be addressed in a presentation on theoretical background (~45 minutes), presentation of the case study (~45 minutes), small group work including case study analysis (~2x90 minutes), and a full group discussion (~60 minutes).

For small group work, participants will be divided in 6 groups of approximately 8 or 9 people. A faculty member will be a part of each group and will facilitate group discussion.

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00-</td>
<td><strong>Welcome and Review of Workshop Program</strong></td>
<td>Liset van Dijk</td>
</tr>
<tr>
<td>09.15</td>
<td>General overview and welcome. Participants will introduce themselves</td>
<td></td>
</tr>
<tr>
<td></td>
<td>within their small groups.</td>
<td></td>
</tr>
<tr>
<td>9.15-</td>
<td><strong>A brief overview of the Maestro Tx intervention</strong></td>
<td>Sabina De Geest</td>
</tr>
<tr>
<td>9.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:30-</td>
<td><strong>Quick refreshment review of implementation theory (general):</strong></td>
<td>Leah Zullig</td>
</tr>
<tr>
<td>10.00</td>
<td>1) Review why theories are important in implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2) Review the life of an intervention from development to implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and sustainability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3) Provide detailed discussion of CFIR</td>
<td></td>
</tr>
</tbody>
</table>
Lecture Adapting an intervention to another setting

10.00-10.30
1) Review why and when to adapt
2) Review core elements and adaptable periphery (what are they and how to identify)
3) Discuss fit and fidelity
4) Apply the CFIR
5) Involve research team and multidisciplinary stakeholders

Leah Zullig

10.30-10.45
BREAK

10.45-11.15
Presentation Case study

Sabina De Geest

11.00-12.30
Group work part 1:
1) Goal: application of the proposed frameworks and strategies for adoption of an adherence intervention to another setting using the case study (see above). Reflection and discussion of transferability of the learned material to the participants’ own setting/context will also be encouraged.

Sabina De Geest & Bart van den Bemt

12.30-13.30
LUNCH

13.30-13:45
Reflection on First Israeli Medication Adherence and Implementation Science Workshop (Avi Leader and Leah Zullig)

Leah Zullig

13:45-15:15
Case Study /Group work, follow-up
Goal: application of the proposed frameworks and strategies for implementation and sustainability for adherence interventions using the case studies (see above). Reflection and discussion of transferability of the learned material to the participants’ own setting/context will also be encouraged.

Juliet Foster & Sabina De Geest

15.15-15.30
BREAK

15.30-16.30
Feedback group work & discussion

Bart van den Bemt & Sabina De Geest

16.30-17.00
Discussion and Evaluation of Workshop & Conclusion
Goal: Review of current workshop and discuss improvements for future workshops
- What was appreciated? What was less valuable?
- Which new content could be integrated into a similar 2017 ESPACOMP conference?
- What should be the emphasis / priorities for research from your perspective?
- In what way will today’s workshop impact your future research/practice? What are you going to apply and come and tell us next year?

Sabina De Geest & Liset van Dijk