

SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

Action number: CA18211

STSM title: An analysis of the spatial factors contributing to perinatal trauma

STSM start and end date: 10/05/2021 to 19/05/2021

Grantee name: Myrto Chronaki

PURPOSE OF THE STSM:

(max.200 words)

The purpose of the project was to study how physical space affects the birth process and outcome, and to identify material factors that may be contributing to a negative birth experience. Research on the interaction of space with birth has mostly focused on the social factors and relationships; however, this STSM concentrated on the material characteristic of physical space arrangements, from an architectural point of view. The aim was to identify how medical and social control and restrictions take a material and spatial form in birth places, on order to understand more accurately and concretely the role of the physical environment in women's birth experience. This study will benefit from the host's experience and publications on the ways physical space interacts with birth care and women's experience.

Information gained will be utilised in a COST paper-in-progress provisionally titled "Hospital spaces and traumatic birth: the impact of birth environments on women's experiences" that forms part of the proposed publications of WG1-Subgroup 9 of COST Action 18211. It will also be utilised in current research on disability and birth in the Greek context.

DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

(max.500 words)

The STSM lasted for 10 days with online conferences and independent study, collection and analysis of material and data and review of existing ones, preparation of presentations, and discussions with the host's team.

Initially, team members shared their respective work. Myrto presented her PhD and her post-doctoral research, and a new project on the birth experiences of disabled women, all in relation to the spaces of birth. She also described the paper she is working on as member of COST Action 18211.

Eletta Naldi, PhD student at the University of Florence, presented the MIRE research on ways to improve architecture in maternity care, the redesign of Reggio Emilia Birth Centre, the rationale behind it, and the process of redesign through collaboration between the University and the Health Trust.

Alessia Macchi, also a PhD student, presented the "PISTA" project, a proposal for using "sensory technology" in the design of the birth space, a spatial tool that functions as a nest or cocoon and can be placed in any maternity ward. She also described the methodology of the collaboration between different stakeholders.

Nicoletta Setola, host(ess) of the STSM, shared information about the Margherita Birth Centre in Florence,

architectural drawings and images of the two-storey circular building. She described its creation and operation, and its relationship to the hospital maternity unit. She also directed me to a website on the Margherita Birth Centre. We also discussed the Il Nido Maternity Home and the spatial differences from the Margherita Birth Centre.

Afterwards, in order to investigate the effect physical space has on the birth experience; I collected material on the specifications and evaluations of birth units from eight publications or guidelines from the UK, the USA, Australia and Greece. As an example, I applied two sets of evaluation tools on birth spaces in my data.

The next stage was collecting, analysing and putting together in tables material from five publications on birth trauma, identifying key themes on the definition of trauma and of what makes an experience traumatic, so as to be able to correlate them with mothers' narratives in my research.

I presented this work in our next meeting: the definitions of birth trauma, excerpts from mothers' narratives, some key aspects of the relationship of space to birth trauma as noted in my previous research, and how trauma could be related to low scores in official guidelines and in scientific publications on birth space design.

Later I analysed birth space characteristics from Volos, Athens and Thessaloniki using Setola's categories (8 building spaces): Volos hospital, Volos clinic, home-like rooms in Athens and Thessaloniki. Finally, I made a summary on the various methods of birth space requirements and analysis, including my specifications from the post-doc research, a mention of the Global Environment Design Network and some questions on stakeholders' roles. On the final day we had a discussion on implementation and the role of the university. We also talked about how I could use these ideas for my research on disability and maternity, and my possible participation in the project GBEDN, as a continuation of the collaboration.

DESCRIPTION OF THE MAIN RESULTS OBTAINED

Applicant enters 500 word summary here.

The aim of the STSM to widen and deepen my knowledge of which particular spatial factors affect birth, and which way they do so, was accomplished through the information acquired by the host's team presentations, knowledge and material shared, and through live conversations.

Information acquired covered three areas:

1. design projects that support normal birth
2. methodology and process of planning and design
3. birth trauma definitions and how experiences relate to space
4. birth unit evaluation methods

The three projects presented by the host's team, the MIRE Reggio Emilia maternity clinic renovations, the PISTA sensory technology proposal, the Margherita birth centre, all were very informative and good reference points for possible design projects in Greece. The different approaches to architectural design in Margherita birth centre and Reggio Emilia were also very useful in order to realise that there is not only one solution but many possible ones. The use of high technology to support sensory experience, as it is proposed in PISTA, is an innovative and inspiring project, which has a particular significance for maternity setting for disabled women, the project I am soon going to work on.

The team offered information and experience through the presentation of examples, the rationale and the guiding principles behind the various design interventions. The information about research methodology (analysis, identification of users' needs and medical requirements), the participatory process, the stakeholders' roles, the authority of the university, cooperation with public bodies, architectural issues (the layout of maternity clinic spaces and birth room arrangements, space syntax tools in planning and designing a birth centre) were all valuable to me, as they can be directly applied to any future research or implementation in Greece.

Moreover, and beyond the new information I received, the STSM offered me the opportunity, the space and the time to acquire new knowledge about birth trauma by studying relevant publications and correlate them with women's narratives from my previous research. I also studied existing guidelines and specifications on birth space design and the evaluation methods on the spatial factors that affect birth from the UK, the USA, Australia, and the host's team from the previous COST Action. In the dense time of the STSM, I used these criteria to organise tables of the space design features from my existing research in Greece. In this way I made a concrete specific analysis for presentation and discussion with host and her team. Thus, I created a solid basis for the analysis of the relationship of space and experience, beyond the general idea of the social production of space.

Lastly, we discussed possible utilisation of the information we had discussed in the planned research on disability and birth as a way to implement it in Greece, plus my possible participation in the Global Birth Environment Design Network, as ways to continue research on birth space and dissemination of knowledge.

FUTURE COLLABORATIONS (if applicable)

500

Participation in/collaboration with the Global Birth Environment Design Network: After Nicoletta's suggestion, I contacted Doreen Balabanoff in Canada, to state my interest in participating in the Network (of which Nicoletta is also a member) to which she responded positively. This could be a future collaboration. Actually, I had already had some contact with Doreen because of a paper of mine on birth spaces, so getting in touch for a larger project was a very welcome development.

My other plan is to utilise the criteria I have collected on birth spaces, in my future research project on disability and birth in the Aristotle University of Thessaloniki, in cooperation with the *Papageorgiou* Maternity clinic. The 8 building spaces criteria in particular will be very revealing, I believe, especially for women with disabilities. In fact, I could expand and make them more specific using the additionally criteria of the various types of bodily restrictions caused by disability.