

Combining Motherhood and Science/ How to deal with the conflict between the emerging identities of being a scientist and a mother

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Women are excellent scientists. They bring diversity to science, for example in different ways of thinking about problems (REF). Women can also enjoy the wonderful option of giving childbirth but only until their mid 40s and realistically speaking only during their 20s and 30s. Women in the 21st century can enjoy making a variety of life choices. However, for women that do want to combine being scientists and mothers this choice is neither trivial nor easy. Often it has to be made during a stage that is very delicate in their scientific career – during their undergraduate, graduate or post-doctoral training. The inherent difficulties of starting off on a scientific track alongside emerging motherhood often underlie the hardship for women to choose this path. Thus, we believe that women who would like to combine a scientific career with motherhood, To experience the joy of having a family alongside the excitement of being a scientist, must be given the tools to do so, and the encouragement that they can, at an early time point in women's careers.

We, wanted to give women who would like to combine these two tracks the tools to safely navigate these rocky waters, to help them prepare well for the transition and to give them support to make the choice that is right for them. To this end, in the second semester of 2015 a unique course was launched at the Weizmann Institute on combining motherhood with science under the support and auspices of Prof. Daniella Goldfarb, the presidents advisor on women at the Weizmann. The course was the love-child of the three of us that for many years now have been discussing the difficulties and the pleasures of this non-trivial career/life choice. From our many discussions we have found that our life as scientists that combine motherhood (we each have 3 children) has taught us many strategies that enable us to survive and flourish, however, it is not always easy to delineate these strategies and verbalize them to others and hence, this course was an opportunity to formulate our joint experience into a mentoring chance for women soon to enter into this challenge. We hope that our experience from this course will not only help the women that participated in the workshop but also enable us to now better mentor and coach our own students as well as potential inspire other female mentors to find ways to pass on their knowledge and life-experience to younger females at the start of their career.

The course consisted of 7 meetings and the number of participants was kept deliberately below 20, to enable an intimate environment. It was clear right from the beginning that “what is said in the room stays in the room”. Openness was quickly created once we, the three scientists, shared our own personal experience. In addition to meetings led by us, we invited several professional therapists to share their expertise on topics that we thought will be beneficial for the young women scientists, as described below.

Meeting 1, Introduction and discussion on getting ready for the changes in life and family – how to deal with the conflict between the emerging identities of being a scientist and a mother. Led by Psychologist, Dr. Carmit Vagshal.

Carmit Vagshal discussed how the identity of a mother is built largely upon the expectations of society. Because of this, at this critical point in life it is important to create your own view of the important aspects of motherhood (for you) and not to let external voices guide you. For example, some may believe that children benefit from having their mothers around the entire time (despite research that shows differently (REF)) whereas others believe that spending 3 hours a day with your child but filling them with quality time is more important than spending the entire day with your child. The truth is that the optimal balance between family and career is a cultural one, which changes over years or between different countries. There is massive pressure from society, however, to align with the current culture, and so often women that try to combine a career with motherhood feel like they are not good enough. Carmit discussed the importance of finding your own voice and support systems.

Meeting 2: Psychological and physiological changes during and after pregnancy. Led by Psychiatric expert and Psychotherapist, Dr. Liat Huller Harari

Liat Harrari discussed how difficult it is for perfectionists and over-achievers (found a lot in academic institutions) to face a situation where they can-not be perfect – both a perfect mother and a perfect scientist. Hence, when the time comes to combine the two roles, it is essential to learn how to be just “good enough” and how to ask for help – an important skill that most high achievers are not good at. We felt that being “good enough” is an important aspect of how we have learnt to function, by Pareto’s principle (also known as the 80–20 rule) that states that 80% of the work gets done in 20% of the time hence if you want to reach perfection (100%) you have to spend 5 times as much time.... difficult to do when balancing family and a career. (REF).

Meeting 3+4: How to set up your lab projects before and after pregnancy so that you can successfully fade out and then re-enter your work: active work group guided by the three PIs

The lesson by the three PIs tried to convey the complicated nature of the student/PI interactions. Since all three of us were in the position of a young student/mother and now we are PIs so we are familiar with both sides. Therefore, we could reflect to the girls the feeling and fears of the PI. The impact that long maternity leave or loosely attached student can have on a lab. These are often “mine fields” for PIs that are worried that discussing them would appear unsupportive or chauvinist but we could discuss them freely and it was an important aspect of the course.

Our meeting started with how to share the good news with the PI. We discussed potential reactions of PIs to the “news” – no support/mentoring/coaching in the best case scenario and may even be negative. Why is this? Partly because of the complexity on the side of the PI because they may be happy and excited for their student on the one hand while also fearing the impact of this change on the lab –

papers may be scooped, grants may not be renewed and biggest fear is to lose a great student. Moreover, often people do not know how to respond in these situations fearing that their actions will be mis-interpreted and hence they prefer to not talk about these things or walk around them. One of the most important things that we discussed is how each student must take responsibility to the change that is about to occur. Remind the PI of your drive and passion and assure them that your research is important for you although things are bound to change in how you execute your science after your life changes to include care for a newborn.

We then discussed the importance of planning your project before leaving on maternity leave. During the pregnancy there are many changes occurring in your body – there is change in focus (internal), sometimes difficulties in functioning and tiredness. You have three ways to deal with it but anyway you have to plan it in advance and not just “let things happen” as well as share your plan of action with the PI:

- i. *Letting go/continuing at the same pace* – While this might be the right way for you, it is important to be aware that this point of view signals to the PI that you have given up. This track will also, most likely, make your progress slower and make it harder to get back to full scientific activity after maternity leave. However if you must take this path discuss this with the PI and accept that they will have to act in a way that will protect their own investment in the project.
- ii. *Step on the gas* – As scientist we are used to deadlines, sometime they are only fictive. The due date is a real deadline, so you can use it to try and finish your project before going on maternity leave. Many women find that this is their most productive time with a looming deadline and the promise of a quiet maternity leave. Think of this as a potentially highly productive time in your career (can get papers out the door....)
- iii. *Share the wealth* – Share your project with someone and mentor them into it so there can be continuity. This must be discussed with PI but can teach you a ton about mentoring and enable you to be part of the project even during maternity leave.

We next brainstormed tactics for keeping in touch with the lab and PI while on maternity leave – two very important things to ensure that you will continue to feel part of lab life and not lose touch with science. (Some strategies that were raised are given in box1):

The difficulties in coming back after maternity leave were also discussed. Due to the physical and emotional difficulties (i.e.hormonal, lack of sleep, hard to detach from the baby etc.) we discussed why it is important to plan specific things to do at this time. It is easier to walk into a pre-planned trail than to search for an unpaved track. We tried to think how to plan for this stage to do things that will make the return easier – write a review, data analysis, technical work – each person according to their work style. Discuss the importance of accepting that you are now “just good enough”. Find support systems and creative solutions for how to do things (for example go

home early most days but take one day to stay as long as you need while others are taking care of baby), get family/friends to help, get peers/PI to help.

Meeting 5: Managing relationships – Getting a solid support system during and after pregnancy. Led by Bibliotherapist and Support Group Leader, Dr. Ephrat Havron.

Ephrat discussed the importance of finding support systems upon return to work. Many women have a hard time asking for help as they fear it may reflect an inherent incompetence or let-down their family and colleagues expectation. However, asking for help enables deep interactions to occur when other people too learn to trust you and enable you to help them. Many women experience difficulties after child birth as they take on themselves the entire responsibility for the difficulties that arise at this time and in parallel nurture animosity towards the husband, PI, parents etc.. that are not supportive. It is an active skill to learn to reach out and one that must be practiced. If there is no one to request help from than also getting help from a paid professional is a great option. In general help should be sought not only physically but also emotionally as a psychological support system (friends, family, psychologist, coach) are an important aspect of dealing with the myriad of changes that occur after child birth in general and in highly competitive fields such as science in particular. Importantly, we also encouraged the girls to see the participants as a supportive network for the future, and gave examples from our own lives and the support system that we three have set up and are enjoying.

Meeting 6: Tools for assertiveness: Led by Clinical Social Worker Orit Viterbo.

Orit discussed the importance of learning assertiveness and assertive behaviors. Assertiveness is the quality of being self-assured and confident without being aggressive. In the field of psychology and psychotherapy, it is a learnable skill and mode of communication. Being assertive enables you to get the things that you need while refusing to do things that are not important for your own well being or progress but rather for those of others. Orit discussed how important it is to practice and practice assertive behavior as it is a learnable skill. Often just changing body language, voice, looks and tonation can make a big difference and get you off on a good start. We discussed the complexity of being assertive as females since assertiveness is often confused with aggressiveness and females often have more of a need to please and to refrain from standing their own ground. Moreover, sometimes assertive women are regarded as masculine and many females shy away from that appearance. While society must change to stop accepting certain traits in a gender specific manner, many females must also learn to change from within to accept this role and position.

Meeting 7: Post pregnancy: Dealing with the challenges of combining motherhood and a career. Led by Psychologist, Dr. Carmit Vagshal

Summary

How can 7 meetings change the life course of women and give them the tools to tackle the massive difficulties that are part of combining two giant jobs into one life? Well, perhaps the most important aspect of the course was the ability to interact with three women who have made this choice and are happy and grateful that they have. The interaction with us says “yes you can” and we made sure to constantly tell about our own experiences - the difficulties, the solutions and the beauty of this life. Sharing our fears and difficulties with the students helped breaking the paradigm that one has to be a “super-woman” in order to have successful carrier. Another important aspect was achieved by reflecting the PI’s point of view. We emphasized that the PI and the student share a common goal – a successful scientific research.

Another enormous aspect of the course was the support group and friendship that was enabled by the close interactions between the women that were all in a similar stage of their life (just before first pregnancy or pregnant with their first child) – we hope that this friendship will continue and support them as they reenter their scientific life.

Finally, it is said that being aware of the problem is half way to solving it. Our course intended to raise awareness to the various challenges and changes that are about to occur and to legitimize them and let the women know that they are not unique in experiencing them, that they are not alone and that they are experiencing a transient and normal reaction to an enormous change in their life. By giving specific tools and approaches to deal with the ensuing changes we hope that we have enriched the tool-kit of these amazing women, on the brink of one of the biggest decisions that they will ever make.

Box 1: Strategies for keeping in touch with the lab during maternity leave.

- Invite everyone to come and visit you at home for a small breakfast (each person can bring something so you don't have to work hard)
- Get someone to take care of baby for 2 hours each week and come to group meetings
- Make sure you stay on the labs whatsapp group and stay active there.
- Come for a short lunch on the lawn with the baby and invite lab members to come out and sit with you.
- Call the PI once a month just to say hi
- Come to chat to the PI once a month and have lab members take care of the baby while you are in the office
- Connect to Group meetings by skype
- Send weekly updates to lab with pictures of baby
- Ask PI to be cc'd on all emails of the lab/just emails about your project
- Come to seminars (with baby in holder?)
- Follow your pubcrawler once a week and email PI with any new interesting papers that may have come out
- Join Happy hour activities (with baby)
- Invite PI to see you and baby at home one time.

Box 2: Tips for effective time management after pregnancy.

- Get your partner to be equally involved.
- Prioritize your project tasks and keep continuous communication with your PI.
- Define daily/weekly/monthly schedule with your tasks, to maximize your efficiency when you are in the lab or at home.
- Check which part of your work can be done at home and install relevant software.
- Try to stay a day or two longer hours to enable long experiments
- Request your lab mates to help you in little tasks that can maybe save you waiting time (turning equipment on for example).
- Accept the fact that things will not always work as you planned them, enable yourself flexibility
- Learn to forgive yourself when things don't go as planned.
- Get help for household duties
- Learn to say no
- Remember to keep some time for yourself (sports, friends, quality time with your husband, everything that makes you feel good).
- Learn how to use time management tools effectively (such as an electronic calendar) this will help you get things/duties out of your head