Expecting great expectations when expecting

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Abstract: Pregnancy is a time when a woman experiences a number of unexpected biological, psychological and social changes. Traditionally, woman sought guidance and help from their mothers and/or social circles to learn how to tackle these changes. With the advent of the mobile revolution, women are now turning to mobile applications to do the same. In this article, we review a pregnancy tracking mobile application called Ovia, in the light of the comments made by mothers using it from around the world. We learn that women like Ovia because it allows them to track, monitor and explore their pregnancy journey by receiving personalized guidance.

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Pregnancy is a time when a woman experiences physical, biological and brain changes that can place her under significant pressure. Therefore, she must strive for informational, social and emotional support to successfully navigate this journey. The regular prenatal visits are essential but they are limited in time and frequency. Women, especially first-time pregnant, may have many questions that simply cannot wait until the next appointment. At the same time, it is not possible to rely on random sources of information because every pregnancy is different. Each woman has specific risk factors and needs dictated by her bio-psycho-social background. There are several online sources that have reliable medical origins but finding out exactly what one wants can be a daunting experience.

Fortunately, the mobile app revolution is making life easier for pregnant women. Today, there are over a million pregnancy-related mobile apps that can be roughly classified into a few distinct categories. Some help women monitor and track pregnancy signs and symptoms. Others are informational in nature and focus on delivering appropriate pregnancy-related content to their users. Many also strive to actually teach and coach women to practice and develop essential skills, such as labor and delivery, parenting and breastfeeding. While some connect women with other

mothers who may provide support and guidance.

Among these applications, Ovia stands out with a 4.8 star rating and over one million downloads. Our analysis of reviewers' comments and application's features helped us understand why. The app allows its users to personalize its content by providing some personal details. The user mother can enter baby's gender and due date which the app can use to deliver fun and interactive updates on baby week by week growth. The women can choose themes and colors to imagine their babies' sizes in comparison to everyday objects (*Figure 1*). This feature is especially loved by first-time mothers who are curious to learn about their baby's development. "I love knowing I can go on here and just see how my Lil Monkey is growing and what changes I need to get ready for, the hand print and foot print is an adorable idea," (Unknown; November 12th, 2017).

The app can use a woman's demographical data such as age and BMI to generate personalized articles on the time-line of the main page. For women who may be suffering from complications such as excessive weight gain, gestational diabetes etc., the app makes it possible to set and track health-related goals to improve (*Figure 2*). For example, a woman can specify how much she wants to sleep, eat and exercise on a daily basis. These factors can have an impact on her bigger goals such as weight gain during the entire pregnancy etc. If

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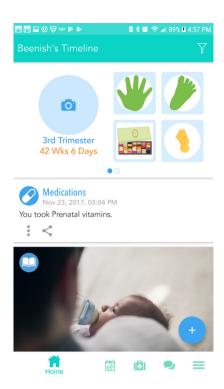


Figure 1 Main page.

the woman is regular with tracking her health indicators, the app uses them to generate charts to help a woman visualize her patterns and goal progress, helping her obtain insights to improve her health. A reviewer comments, "It feels very personal too as it feeds back on the data you input. You can also customize lots of different things too. I highly recommend it to anyone wanting a pregnancy tracking app." (Rachel Green; November 6th, 2017). Moreover, the app prompts a woman to track her goals so ensure she is on track with her goals. One woman reports that Ovia has helped her maintain her weight gain during pregnancy. "I have loved using Ovia for my second pregnancy! I was looking for something that would help me track my weight so I didn't go over the recommended weight like I did last time. Ovia has helped me do that and so much more!" (Megan Petty; October 14th, 2017).

Everyday, the app posts new articles on the timeline based on a woman's pregnancy stage and her specific needs. Another personalization aspect of the app is that it allows a woman to complete her health assessment and send results to her insurance. The app generates articles and tips to educate women on how to utilize her insurance options to improve her pregnancy experience. For example, many health plans reimburse fitness expenses such as yoga fees

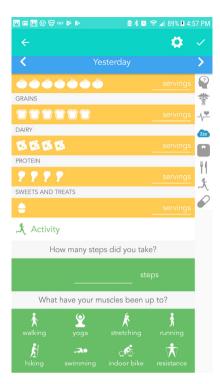


Figure 2 Goal tracking page.

etc. The app also provides coupons and discounted offers from some leading brands. One limitation of this feature is that insurance and other perks are United States centric, which limits this app's usefulness for the International users. "It's fun but very American. All the measurements are imperial and fruit comparisons are things you may not have heard of unless you are from USA. Not the best for Aussie/global mums but fun nonetheless," (Lucy Crowley; October 11th, 2017).

Unlike other applications, Ovia makes it possible for women to talk to a real person who can answer queries and put women at ease. A reviewer reports "I love that I can text a message and have someone, a real person respond. They will laugh with you if you type in something funny, bid them well wishes, etc. It's nice to not have a computer generated response team. That's why I love this app. You can ask or talk about the weirdness of pregnancy without worrying," (Natasha Castro; November 24th, 2017).

Besides generating personalized content, the app also provides several features to encourage self-exploration. For example, the app has food safety, medication safety and symptom lookup features that women can explore to make educated decisions regarding their health (Figure 3). "I've used the food safety and medication safety lists extensively. The symptoms list has reassured me when I've felt like an inhuman monster,"

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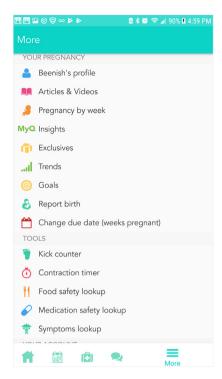


Figure 3 Ovia menu page.

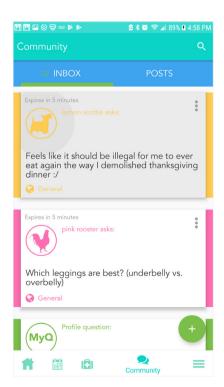


Figure 5 Community page.

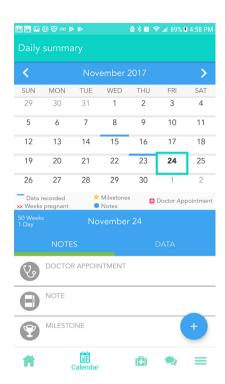


Figure 4 Calendar page.

(Taylor Schraad; October 27th, 2017). These features can also arm women with relevant questions and queries that can empower women to ask relevant questions during their visits to the practitioners. The application also allows women to set appointment reminders to ensure she is not missing her appointments and developing gaps in her care (Figure 4). "It allows me to remain organized for my visits to my OB with concerns, questions, symptoms I have experienced since my last visit," (Rebecca Thompson; October 8th, 2017).

Unlike other apps, Ovia comes with a free kick counter and a free contraction timer. These tools can be used to track important data during the third trimester, close to labor and delivery time. If a woman is using other wearables such as Fitbit or Jawbone, she can easily sync these devices with Ovia and accumulate her health data in one place. This can help lower the burden of tracking and keep women focused on their well-being. Finally, the app incorporates a supportive community consisting of other mothers using this app (Figure 5). Here, women can ask any question while staying totally anonymous. Women can also read existing posts and learn from the experiences of others. "There is an anonymous community you can ask your

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questions, no matter how embarrassing. I've found Ovia to be more than helpful!" (Keri Bahorich; October 26th, 2017). The expectant fathers can also use this app on their phones using mothers' loging details. Any updates by the mother will show up on the father's app keeping everyone in the loop. Even grandparents can download this app on their phones and stay involved in the birth of their grandchildren. Moreover, if women are very excited about sharing, they can post updates and fun facts produced by the app on their Facebook page from within the app itself.

Overall, this app can be a very handy tool for pregnant women who want to get more organized and who want to experience healthy pregnancies. "This app has been very helpful in letting me understand the changes going on in my body, as well as the changes going on with my baby body. It's answered a lot of my questions and soothed my anxieties. Lots of great articles to read, not to mention, it was spot on with what my due date was supposed to be! Love this app!" (Unknown; October 6th, 2017). It is also a good alternative to random searching on the Internet because actual medical

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personnel are involved behind the scenes. "I recently just got and I'm loving it. I didn't think apps like these existed. Literally everything I've been struggling to find on Google is right here. Knowing that actual Drs are involved is so reassuring and I love the fact that they cite all the references they make to other people's work. So far so good. Oh, and every time I open the app, there's new information for me to learn about my baby. I feel so informed. I really love it!!!" (Remonah Stemmer; October 10th, 2017).

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Footnote

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