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Mothers' perceptions of their Birth Experience in Greece: Could We Do Any Better Than That?

Research Analysis of the Babies Born Better Survey for Greece

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Abstract

Background

More than 100 years research and clinical experience in prenatal psychology/ psychotherapy and relevant fields have shown that the way we are gestated and born is closely associated with the quality of life, psychosomatic health and relational quality on a personal and a global level (1). The way we care for the birthing mother and the newborn is an indication of the well-being of the society as a whole**. T**he mode of birth is an indicator of a number of birth-related conditions (2, 3, 4) which can lead to peace and health or the opposite. **In alignment with** WHO **supporting that "**every mother and child counts**"** (5, 6, 7)**, i**n the years 2014 and 2015 B3 **survey tool (8)** was designed to explore women's experiences of maternity care across Europe **and map what best works for whom, where**. This paper aims to present the results of the analysis of the data collected, as concerns Greece.

Method

The research was based on the B3 (Babies Born Better) survey which was initially launched in 2014 as an online survey on survey Monkey[1]. The survey, which was translated also in Greek, consisted of 24 questions, a mixture of yes/ no, multiple choice and free text responses, divided into six sections to explore how birthing women experience their labour in the participating countries and collect their suggestions for positive change. Consequently, it was a mixture of quantitative questions related to demographics, clinical factors and type of care/ place of birth and qualitative questions in the form of open response questions inviting the participating

[1] For the full questionnaire, please see the Appendix A at the end of the paper

women to express their views and voice their suggestions. The Greek responses were identified, properly analyzed and the results are presented **here**.

Results

There were 2089 respondents from most big cities of Greece, giving birth to their children in Maternity Hospitals (the vast majority) or at home (the big minority) with the support of both obstetricians and midwives. The feedback is that on the whole, birthing mothers had a positive experience but there is still a lot that needs to be improved as concerns the birth procedures, the birth environment, breastfeeding and newborn support and the quality of relationship dynamics between the carers and the mothers/ newborns.

Conclusions

Mothers highly value feeling secure when birthing and be treated by knowledgeable and experienced caring staff. They also appreciate a quiet, home-like environment in which thoughtful behaviors and procedures can be presented by updated, honest expert medical and managerial staff, who encourage mother-newborn bonding and sincerely support breastfeeding. They also ask for training support as to how to take care of their child in the days after birth. Finally, they speak about respectful care provided to the highest interests of the whole family in which they are included as decision makers having been asked and informed before any medical procedures.

Key words

Childbirth, Maternity health care quality, Greece, labour, breastfeeding, newborn

Background

More than 100 years research and clinical experience in prenatal psychology/ psychotherapy and relevant fields have shown that the way we are gestated and born is closely associated with the quality of life, psychosomatic health and relational quality on a personal and a global level (1). The way we care for the birthing mother and the newborn is an indication of the well-being of the society as a whole**. T**he mode of birth is an indicator of a number of birth-related conditions (2, 3, 4) which can lead to peace and health or the opposite. The maternal and newborn pre/ perinatal health matters to every person, society and country across the globe, viewed from both a human rights and wellbeing perspective. And certainly the issue of safety remains top priority. However, over the last decades, safe birth is not just enough. Optimization of birth is the focal point as it will maximize positive impact for all humanity.

The understanding that the baby being born is an active agent that needs to be taken into account when designing caring procedures and services remains to be seen and we hope to see it in the near future. This will bring huge attitudinal changes in the way we see life, health, relations and caring systems. At the moment, we remain in the philosophy of strengthening and embracing a mother-centered, human-rights-based philosophy that reveals a number of care options we were negligent in the past. The emphasis is still mainly placed on the birthing mother experience, failing to embrace the system of mother, father, unborn child as existing in the temporal, sociocultural environment. Despite the voices already speaking about the need

to adopt respect-based caring services for all involved to improve the health and wellbeing of the existing and future generations a lot remains to be done.

Obstetric Care and Mothers' satisfaction Research in Greece prior to now

Within this context of mother-centered, however, it is still essential to collect and compare data about service design, service satisfaction indicators and outcomes, on a local, regional and international level, analyze them in their context and compare them so that we can better understand similarities and differences and then, come up with new better solutions to existing challenges. It is also very significant to do that including the service users as active carriers of information and reliable sources of possible good answers.

In Greece, there have been efforts to measure the birthing mothers' satisfaction level so far. Among the earliest studies, in 2006, Sapountzi-Krepia et al (9) underlined the need for research that would aim to see the quality of maternity care provision offered by health visitors, community nurses and midwives and the level of satisfaction that service users experienced. Till then, there was a rarity of research or study data as concerns maternity care, in general, and mothers' satisfaction of the maternity care offered in Greece more specifically. That was mainly because the field of research and academic study among the visiting nurses, health visitors, community workers/carers and midwives was really low if any. With the exception of a very small number of medicals or anthropologists of the post-war times who had an interest in birth issues and how midwives contributed to the birth scene. However, these papers are old and difficult to be spotted.

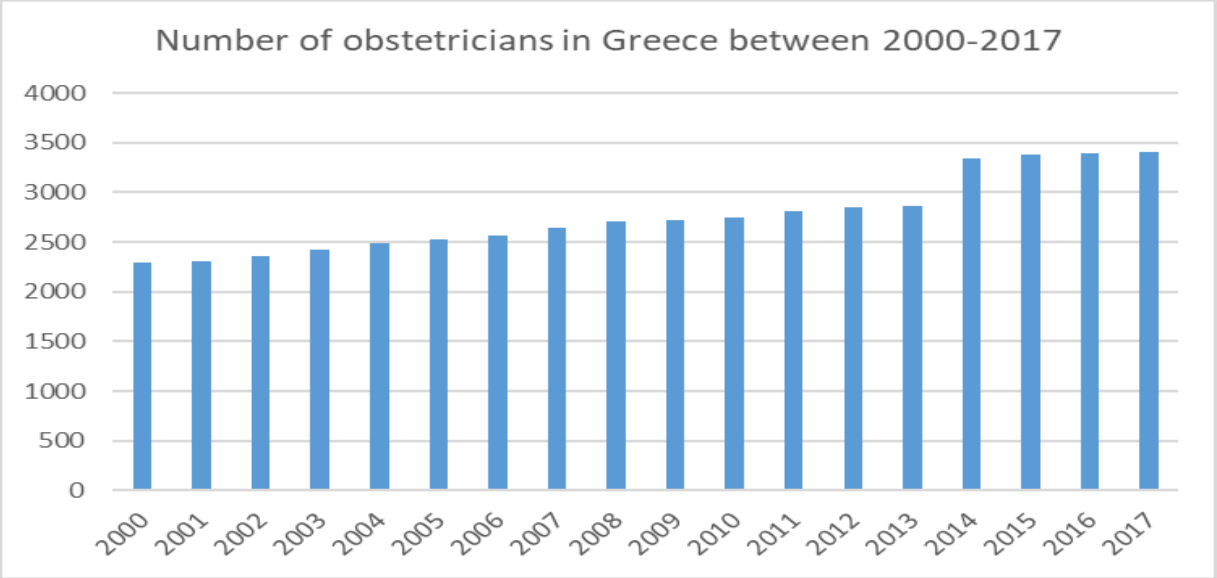
The first two centuries of the Modern Hellenic State, until late 1980s, have little to present. There are only two major studies -the one by Dragonas (10) on the Greek fathers' participation in labour and care of the infant in 1992 and the other, a pilot study by Lykeridou et al (11) on Family dynamics of child-bearing families in Athens, Greece, in 2001. Since the establishment of ESY (National Health Care System) in 1983, the existing literature in Greece is mainly focused on medical and epidemiological aspects of maternity care.

In 2008, Sapountzi-Krepia et al (12) published her paper titled "Greek mothers' perceptions of their cooperation with the obstetrician and the midwife in the delivery room". In this paper, the authors presented the mothers' preference for obstetrician's care than a midwife's care, a result that was in agreement with the high degree of medicalization of birth and the relevant fall in the numbers of home birthing or midwifery care. At the same time, between 1985 and 2000, there was an increase in the number of obstetricians in Greece by 34% while the population grew by 10% (13). In 2017 there were 3,399 obstetricians and gynecologists employed in the healthcare sector in Greece, this was a slight increase from the previous year (14) also Chart 1. Nurses and midwives (per 1,000 people) in Greece was reported at 3.3728 in 2016, according to the World Bank collection of development indicators, compiled from officially recognized sources (15) Charts 2,3,4. During the period of 1950 to now there is a continuous birth rate decline as shown in chart 3 below, with the current birth rate in 2020 to be 7.475 births per 1000 people, a 2.38% decline from 2019 and a continuous fertility rate decline as shown in chart 4 below. The current fertility rate in 2020 is 1.286 births per woman, a 0.62% decline from 2019.

In 2009, Chaniotakis & Lymperopoulos published their paper titled "Service quality effect on satisfaction and word of mouth in the health care industry" (16) in which the "only service quality dimension that directly affected word of mouth was "empathy[2]", which, in

turn, affected "reliability[3]", "responsiveness[4]", "assurance[5]", "tangibles[6]" and finally "satisfaction". This "Word of Mouth" (see diagram 1) model based on the work of Parasuraman et al. (17) related to the SERVQUAL model , of Youssef et al. (18) and Fuentes (19) for the evaluation of healthcare quality was used by Channiotakis & Lymperopoulos to measure "service quality dimensions" using the five latent variables, namely tangibles, reliability, responsiveness, assurance and empathy. It was very close to the BBB survey as there is the common ground of using the word of mouth: both of them look for the intention to recommend the maternity hospital/ care they received to their best friend and relative and they both targeted the population who had given birth to a child during the last five years. It seems that the present survey confirms those findings which summarize briefly that the more empathy mothers perceive that the staff show to them the higher their intention of using WOM to recommend the service they experienced to their closed and dear ones.

Chart 1



[2] Empathy (EM): This indicator relates to the caring and individualized attention provided that is 1. The staff offers personalized attention, 2. The staff understands specific needs of mothers, 3. The staff show sincere interest and 4. The staff looks for the best for the mothers' interests

[3] Reliability (REL): The indicator relates to 1. The ability to perform the promised service dependably & accurately, Maternity hospitals included, 2. The promises made are kept, 3, any and all services are carried out the right way.

[4] Responsiveness (RES) is an indicator related to 1. the willingness to help and provide prompt service, including 24-hour availability. It is observed when 2. the staff is willing to respond to any need, 3. when the staff spends time with each one and answers any questions posed by the client and 4. when the staff responds quickly

[5] Assurance (AS): The indicator refers to the staff being 1. Knowledgeable and experienced, 2 friendly and courteous, 3. Respectful and treating the other with dignity and 4. Able and willing to explain thoroughly medical conditions.

[6] Tangibles (TA): This indicator is related to the facilities and the equipment of the Maternity Hospital, which is described as 1. Comfortable and friendly environment, 2. Clean environment, 3. Equipped with up-to-date equipment and 4. Has clean and comfortable rooms.

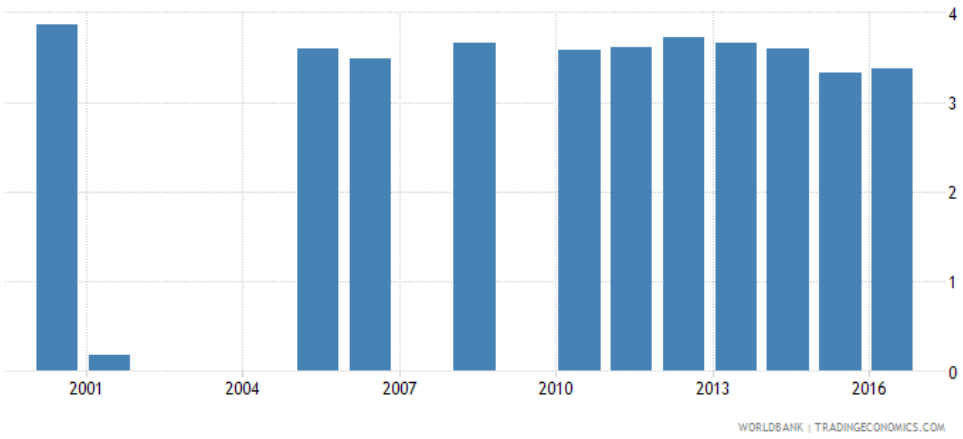


Chart 2: Nurses and midwives include professional nurses, professional midwives, auxiliary nurses, auxiliary midwives, enrolled nurses, enrolled midwives and other associated personnel, such as dental nurses and primary care nurses.

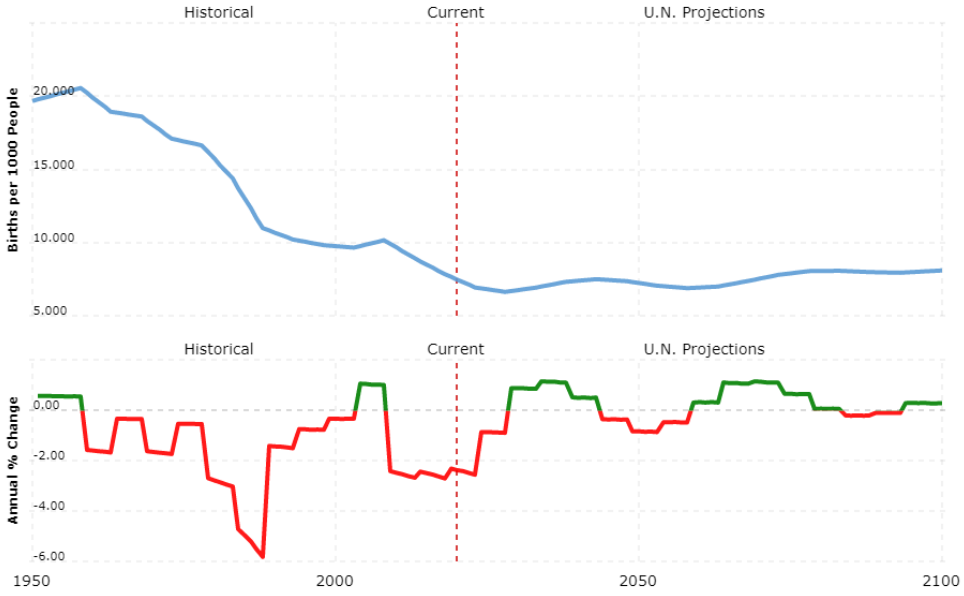


Chart 3: Birth Rates in Greece. Data Source: United Nations - World Population Prospects

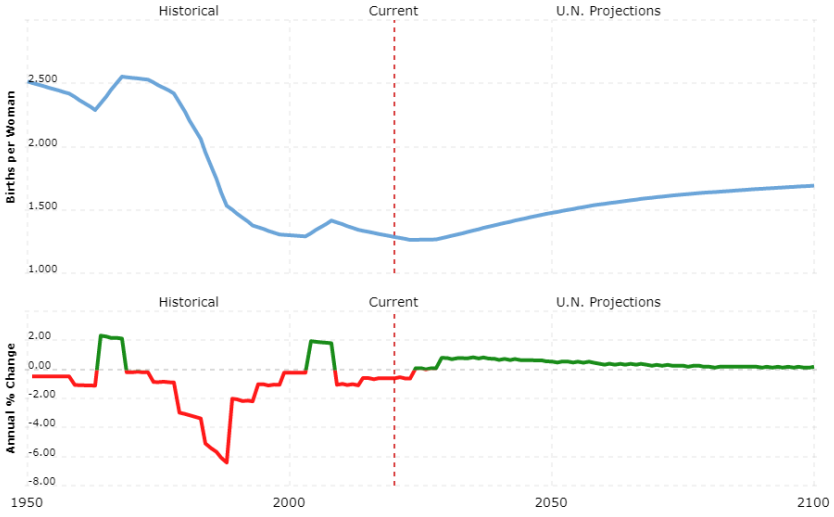


Chart 4: Fertility rates in Greece: Data Source: United Nations - World Population Prospects

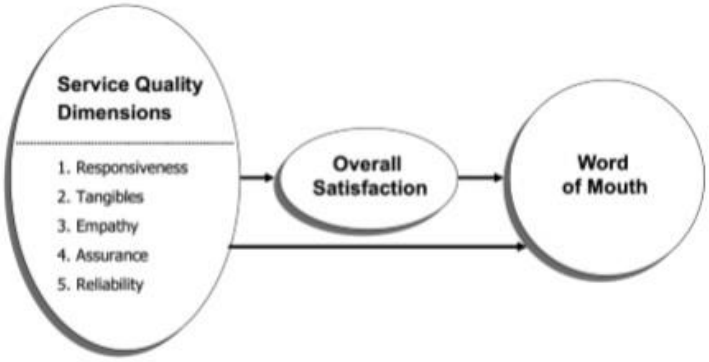


Diagram 1 Word of Mouth

In 2010, Tsetsila Evgenia et al published their own research (20) titled "New mothers' perceptions regarding maternity care services provided in a prefecture of Northern Greece". In this research, mothers preferred to have given birth vaginally –despite the already high cesarean rates in Greece at the time (21) and only a very small percentage would prefer to have a homebirth. 15.3% of the population expressed satisfaction with guidance and counselling (labour preparation, breastfeeding…) offered in the form of courses to be attended. Finally the participants considered that a number of screening tests mentioned to support women/ mothers' health should be offered free by the state health system.

In 2011, again Sapountzi-Krepia et al (22) published another research paper examining mothers' experiences of pregnancy, labour and childbirth in the Northern area of Greece. They found that the professionals' behavior and attitude towards mothers should embrace kindness and respect, that psychological support was needed to reduce tokophobia, good education and preparation courses were highly appreciated, collaboration, help, guidance, support and briefing were factors that contributed to positive childbirth experiences, midwives should be figures of care, that management policies needed to be developed and community maternity services were in need. Again, these findings are confirmed in this study as well, unfortunately also showing that despite the 10 years between very little progress has been made.

In 2012, Iliadou Maria in her systematic review (23) found that laboring mothers highly appreciate emotional, physical, informational support and despite the fact that mothers' needs change as mothers move from pregnancy to labour to post partum and beyond, birth professionals can play a "critical role in mobilizing support systems for new mothers".

In 2018, Pavlos Sachsanidis published his research findings (24) based on the Kupio Instrument for Mothers (KIM), Greek version. He concluded on the special relationship that needs to exist between birthing mothers and birth professionals based on friendship, trust, co-operation and care as these values have direct effects on the delivery outcomes, brought the attention to the need to lower medical interventions –cesareans- and provide additional health services in the educational, informational and preparation for parenthood fields.

In 2018, Panaopoulou Vassiliki et al (25), also published their findings of their cross-sectional study measuring satisfaction of postnatal services in Greece. Their study highlighted the importance of health professionals to add to the mothers' satisfaction by spending quality time with them, giving guidance on the care of the newborn and breastfeeding/ baby feeding. Their findings sadly spotted a gap in the postnatal services offered to new mothers and they

recommend that "health care providers should offer holistic care and try not only to deal with problems, but also to promote maternal health and well-being to educate new mothers for the parental skills they need to care for their baby and empower women to mobilize social support". These recommendations for changes in clinical practice are expected to improve the satisfaction of the women and, at the same time, would improve the health and well-being of the new parents and the neonate".

Babies Born Better

The Babies Born Better (B3) project was conceived, designed and implemented to investigate mothers' views on the quality of the care experience not only on a national level –as the already mentioned research work done in Greece- but on a multinational level as well, as this has not been attempted before. Such a participatory research exploring the satisfaction level of the service user as concerns the care-giving service in the field of such a complex, multidimensional concept that touches and connects the deepest levels of human experience and surfaces the deepest primal fears, expectations and hopes for all involved in a setting in which there is no clear theoretical background to explain it will allow a better understanding of what is of prime importance to birthing mothers, their families and carers in different sociocultural contexts at the same timeframe and serve as guidance for the improvement of maternity services in Europe and globally.

Furthermore, in 2014 the WHO promoted the statement "The prevention and elimination of disrespect and abuse during facility-based childbirth," and called for all states to acknowledge women's experiences of birth and to produce qualitative data that could guide national policies for respectful, competent and caring maternity assistance

This paper aims to present the findings of the first part of the B3 project, the B3 user survey for Greece.

Method

In alignment with WHO supporting that "every mother and child counts" (5), in the years 2014 and 2015, the B3 (8) survey tool was designed to explore women's experiences of maternity care across Europe and map what best works for whom where.

The survey was initially conceived during a four-year EU funded COST ACTION IS0907 project, under the title: Changing Childbirth Cultures & Consequences and it was further developed as a key part of a second COST Action IS1405 (BIRTH) programme. The project involved over 120 researchers from 26 countries, among which Greece. The survey under the name "Babies Born Better" was to explore women's views and experiences relating to care during labour and birth in a number of different countries worldwide and aimed to map best practices and philosophies that support and promote good outcomes and positive experiences for birthing mothers, babies and families.

The survey was designed and developed by the Steering Committee that worked in co-operation with the country representatives[7], got the ethical approval of the Uclan University, Preston, England and was initially launched in 2014 as an online survey on survey Monkey[8]. It was disseminated via social media, in online forums, blogs, websites and all possible network

[7] For country representative, you can consult this page: https://www.babiesbornbetter.org/countryinformation/

[8] For the full questionnaire, please see the Appendix 1 at the end of the paper

tools focused on mothers and health professionals –mainly midwives- and snowballing was used to maximize access results.

The survey, which was translated in Greek and 20 other languages besides English, consisted of a number of questions, a mixture of yes/ no, multiple choice and free text, divided into five main sections and it was a mixture of quantitative questions related to demographics, clinical factors and type of care/ place of birth and qualitative questions in the form of open response questions inviting the participating women to express their views and suggest changes to the better.

Section Description of the BBB Instrument

The survey was designed with the specific questions organized in three main themes:

1. Identification of important maternity care aspects
2. Exploration of cross-country & regional differences
3. Effects of independent variables on the care experience

More specifically:

1. Identification of important maternity care aspects

Researchers and professionals, in the best of intentions, come up with suggestions, recommendations for practices, strategies and protocols based on the findings of their work and decision makers adopt some of them and develop services that aim to offer the best possible results, satisfaction included, in the field of childbirth. However, it remains to be confirmed whether what is designed and offered responds to the needs and expectations of the service users. A number of questions were designed to explore whether what researchers and professionals seem to think of as significant are really thought of as significant by the birthing mothers. An example of this is on the one hand the medicalization of birth and on the other hand homebirth. Do mothers show satisfied with the biomedical model or do they choose homebirth as the childbirth mode that best satisfies them?

2. **Exploration of cross-country & regional differences**

Under this theme, the survey aims to explore whether there is a uniformity of satisfaction level all over the country or different regions in the country show different satisfaction patterns. Especially for Greece, it would be interesting to see whether the island populations present any differences from mainland and whether the Northern regions are the same of not as the Southern or other areas of Greece. Then, it would also be very interesting to see if there are any differences or similarities as concerns the different European countries. Such a mapping would make it possible for service designers to come up with individualized childbirth services depending on the geographical and sociocultural or other contexts.

3. **Effects of independent variables on the care experience**

BBB aims to explore whether there is any connection between parameters like age, migration, parity, mother's health challenges or other factors and the satisfaction level of the birthing mother.

Summary of the data collected[9]

[9] For the full questionnaire in English and Greek, you can see APPENDIX 1

A. Demographics & Eligibility 1. Age 2. Country & City of residence 3. History of migration (why if applicable) 4. Parity 5. Eligibility (birth within past 5 years) 6. Month & Year of the birth of the last child	**B. Pregnancy Details** 1. Gestation week at birth 2. Health challenges in pregnancy (description)
C. Birth Details 1. Birth setting 2. Birth Professional 3. Birth Institution	**D. Care Experience** 1. 3 Best things about your care experience 2. 3 Things you would like to change 3. 6 honest descriptive words of your care experience
E. Final questions 1. Comments 2. Future Research participation	

Theoretical background of the instrument

BBB is an instrument that has taken into account

A. the **Patient-Centred Care (PCC) model** as described by Kitson et al (26) and further developed by a number of researchers to minimize drawbacks. Kitson's three-theme categorization was taken into account, that is
   1. The involvement of the person,
   2. The relationship with the care professional and
   3. The context of the care.
   However, there is a lot of debate on the content of satisfaction itself as it can bear different meaning in different populations and certainly whether the term "patient" is appropriate in the childbirth setting as a birthing mother is far from being sick, that's why the word patient is not met anywhere in the questionnaire.

   The philosophy that was adopted was that of
   1. The respect of the individuality of each mother,
   2. The delivery of truthful, comprehensive information in an appropriate manner,
   3. The involvement of the birthing mother in decision making and
   4. The development of a relationship of trust, devoid of power struggles between mothers and carers for the best decision to be made with multiple benefits measured for all.

B. On **Realism** and the philosophical background of **ontological positivism and epistemological constructivism** (27). BBB was designed as a problem solving tool to detect the areas of concern that birthing mothers have in the childbirth context.

C. The complexity theory
   As childbirth, and generally health, is not a one-factor issue but a complex system, the linear way of addressing it has been abandoned and the understandings gained in the field of complexity have been used to explain health and other human phenomena (28, 29). BBB considers the complexity theory and reflects it in its philosophy and design.

D. Salutogenesis
   Salutogenesis as introduced by Antonowski (30) and further developed by his followers focuses on the study of the health determinants and not on pathogenesis. It is very different from the bio-medical model and introduces the concept of the SOC (Sense of Coherence) which comprises the 3 factors namely

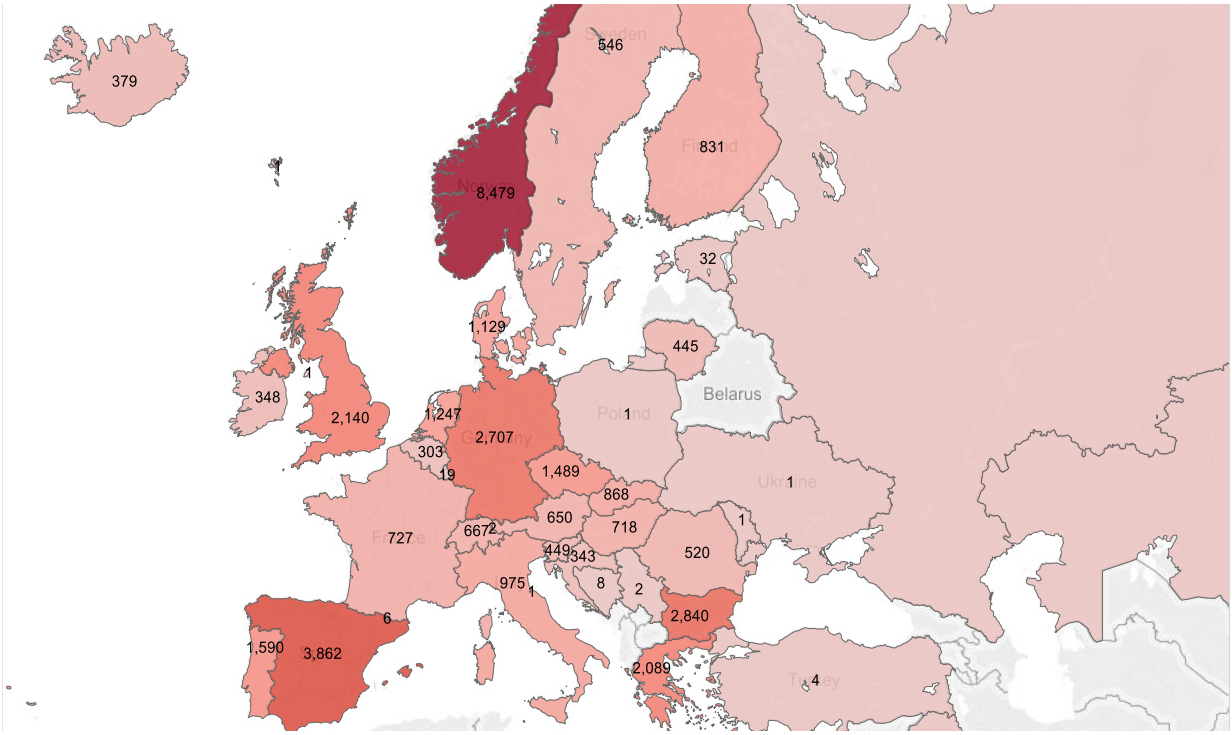
1. Meaningfulness,
2. Manageability and
3. Comprehensibility examining non-biological health determinants such as social integration, self-esteem, personal traits etc. in a holistic way. BBB is based on salutogenic principles to maximize beneficial outcomes for all actors in the childbirth field.

Respondents

The total number of responses was 37,607. When cleaned the usable responses received in 22 different languages by November 2015, a total of 36450 were European answers and 2129 came from Greece (map 1 & map 2). A total of 2129 answers were collected, of which a number of 2089 participants were included in this analysis as they met the eligibility criteria (had given birth within the past 5 years prior to BBB survey in Greece) after screening and cleaning the data. The respondents had been informed (a) about their rights to withdraw if they wished before the conclusion of the survey (b) the fact that their responses would be used only for the sole purposes and aims of this BBB survey (c) that their anonymity would be respected and they gave their consent to participate in the survey. A webpage[10] was created to allow them to follow the results of the survey.

Map 1: Showing the distribution of the responses received over the globe.

[10] https://www.babiesbornbetter.org/



Map 2: Number of responses in the individual countries. For Greece the cleaned answers come to 2089.

Analysis of the Data

The initial list of responses that came from Greece were checked. A total of 2129 responses were received. 2089 responses were included. The distribution in languages used is shown in chart 5 below.

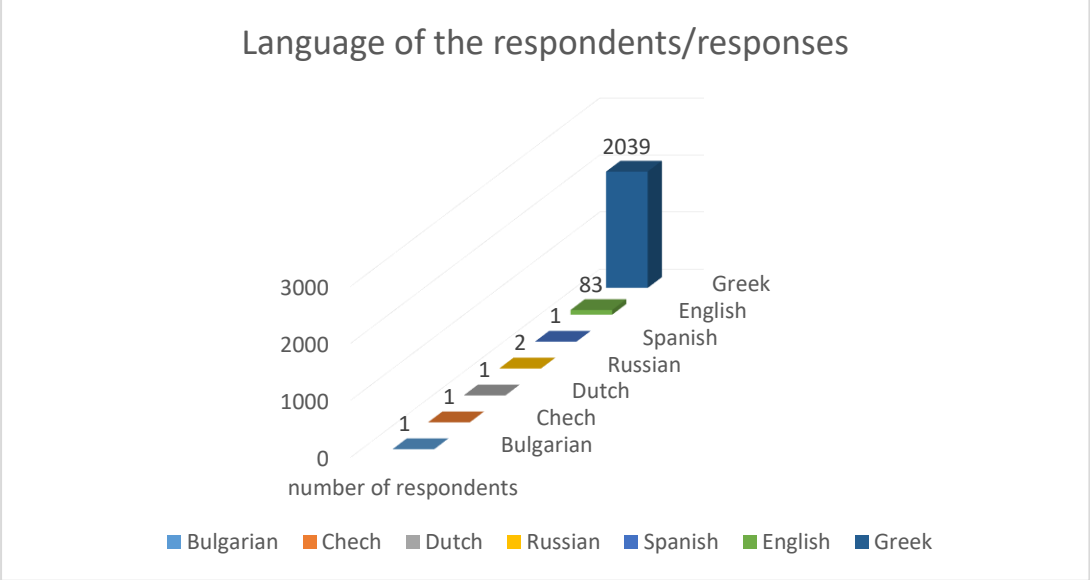


Chart 5: Languages met in the responses

Google translator was used for Bulgarian, Chech, Russian, Dutch & Spanish.

The author received the data without the variables (date of participation, IP address, email address). As only 2089 had given birth within the 5 years prior to the survey, 2089 responses

were included. Whenever there is no answer to a specific question, it is shown in the relevant list.

The analysis and visual presentation of the data were performed mainly with the help of Microsoft Excel. The qualitative data, thematic framework analysis (31) was performed. All answers were read as a first step to get an idea and organize the analysis steps. Then 1/5 of the total data was read to develop a clearer idea over common themes which led to the coding phase taking into account the theoretical framework on which the BBB was based. Groups into preliminary content categories were made and then these categories were labelled with codes. These codes were then introduced alongside the original data. Adaptations were made to best accommodate all themes. Multiple checkings were made to make sure that all parameters were respected and that the essence of the responses was best coded. Careful examination to spot disagreements and refine the classification system was made with a time distance of four weeks until the finalization of categories and codes. This preliminary work revealed many similarities to the word of mouth model and finally the classification system adopted was in line with the WoM.

To guarantee that the interpretation of the rating of the answers, especially the answers to the six honest descriptors was made manually as they presented complicated messages. All answers were first arranged in 3 categories: 1. Absolutely positive (eg everything was perfect), 2. Absolutely negative (eg Never go there) and 3. Ambiguous and then they were processed again and again using the same categorical and coding procedure as described above in mind.

Translations from Greek into English of specific responses presented as examples/ citations to convey the essence of the communication made were performed by forward backward translation and they can be found in the original wording in the original survey as kept by B3 country archives.

The results of content analysis are presented in charts & tables as the number of answers in each content category as well as the percentage of answers representing specific content categories in the entire sample of responses to each question. Charts and visual representations were made to better present data findings. Microsoft Excel was used for them.

Results

A. Participation rate

The first version of the B3 survey was open to women in Europe from 2012-2015. During this time, 2089 clean response sets were collected. The completion rate is shown in the charts 6 & 7 below. The migration low line does not mean that there is an avoidance to respond but because there was a limited number of migrants (n=160 or 7.65% of the respondents) participating in the survey and a number of 114 (or 71.25% of the migrant respondents) answered this question giving reasons why they were in Greece. The declining number of responses in changes 2,3 (change 2=47.12% change 3= 33.54%, while change 1=77.89%) as well as the honest descriptions 4,5,6 (Description 4=47.94%, description 5= 35.74%, description 6= 27.27% while description 1=73.39%) was mainly due to the fact that the most significant changes or descriptions were already communicated. The low number of problems during pregnancy (22.72%) means that the majority of participating mothers mentioned no problems at all. A total of 44.64% of the respondents left a comment and 70.76% of them answered they could be contacted again in the future for survey details.

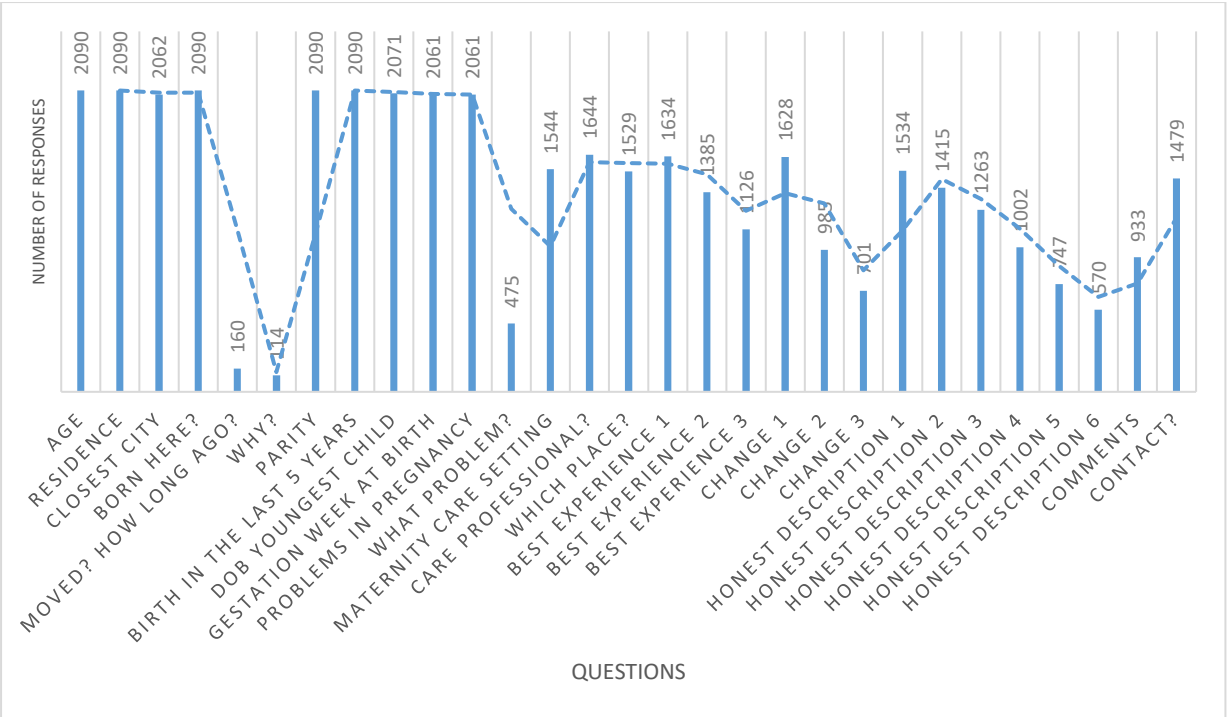


Chart 6: Participation rate in the BBB version 1 survey

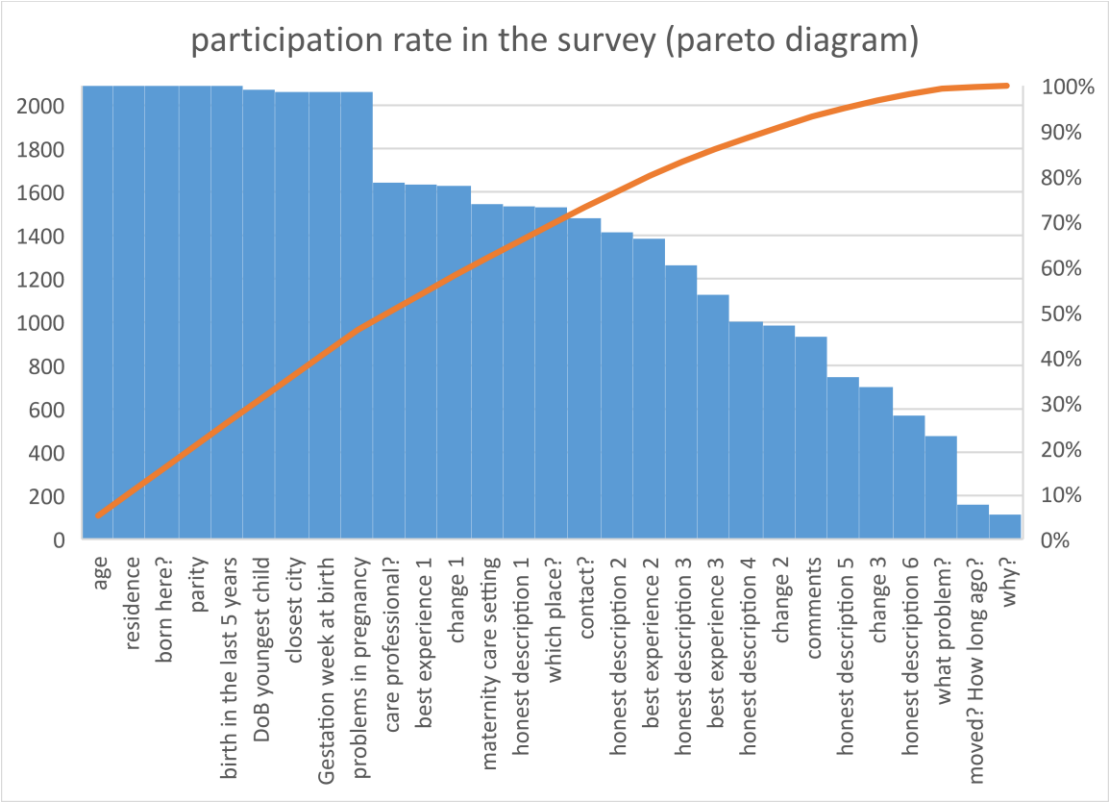


Chart 7: Participation rate (Pareto diagram) in the BBB version 1 survey

Demographics

The Age

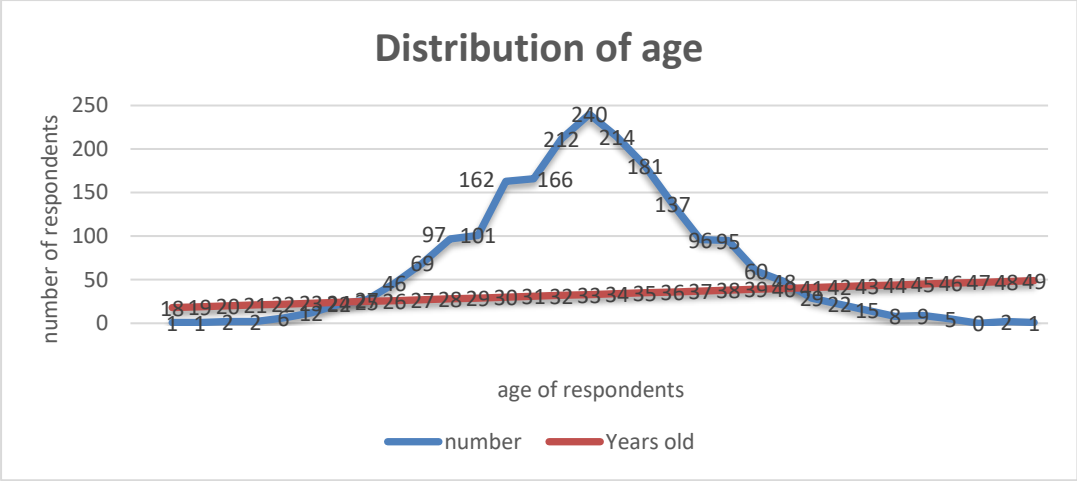


Chart 8: Age distribution among all respondents

The age of the respondents ranged from 18 to 49 with an average 33.5 years of age, with the highest number (n=240) at age 33. According to the Hellenic Statistical Authority [11]statistics in the years 2009-2015 (5 years prior to the survey) the average age for mothers was lower as below:

Year	1975	2009	2010	2011	2012	2013	2014	2015	2017
Aver. Age	26.82	30.32	30.39	30.49	30.68	30.90	30.97	31.31	31.45

To give a comparison in 1975 the average age of the birthing mother was 26.82 years of age and in 2017 31.45. The BBB version 1 respondents are above the average age with very little difference between the native population and the migrant population participating in the survey. Specifically, among the migrant population the age distribution shows below in chart 9. It ranges between 20 and 45 with an average of 33.17 years of age.

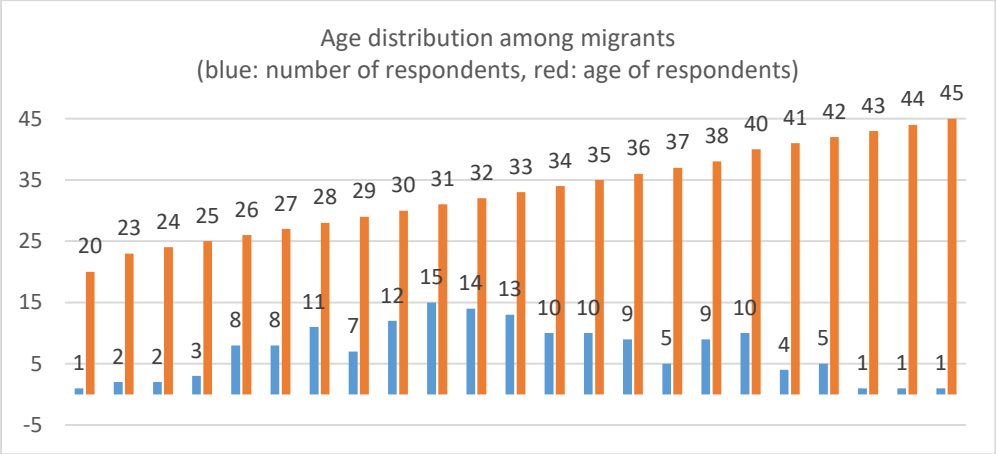


Chart 9: Age distribution among migrant respondents

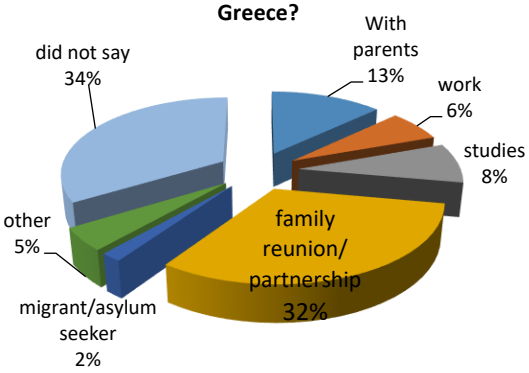
[11] Retrieved from https://www.statistics.gr/ on the 13.05.2020

Residence

All respondents lived in Greece. Of them, 1929 were born in Greece (92%) and 161 (8%) moved to Greece (chart 10) for the reasons shown in chart 11 in a brief way and in more detail in chart 12.

Chart 10: Born in Greece or moved to Greece?

Chart 11: (in brief) Why did you move to Greece?



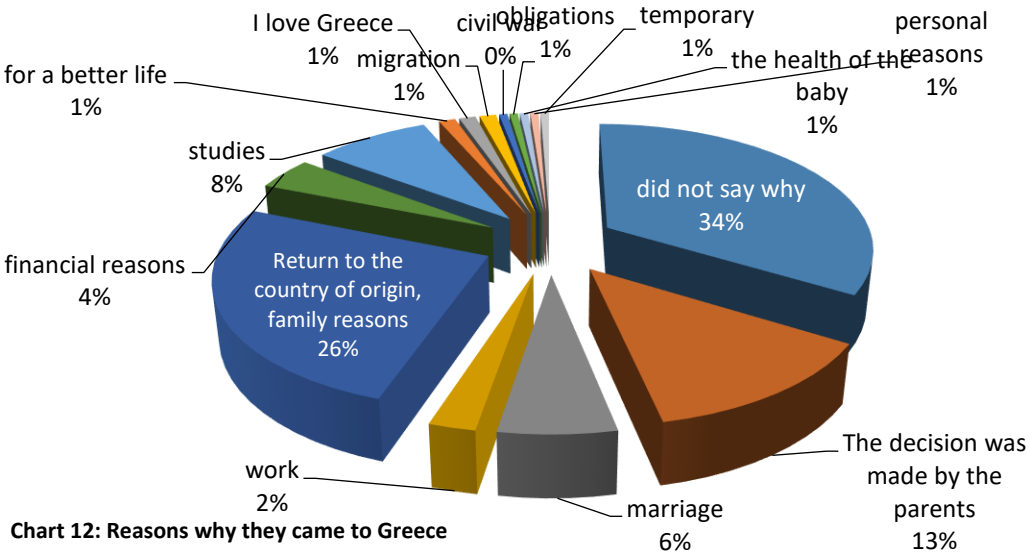


Chart 12: Reasons why they came to Greece

The distribution of them over the prefectures of Greece is shown in chart 13, below, while the distribution in Attiki is shown in chart 14, below. Most of the respondents lived in Athens and Thessaloniki (the two main cities in Greece). In charts 15- the distribution inside each prefecture is shown. A detailed list of all respondents showing the nearest city can be found in Appendix 3.

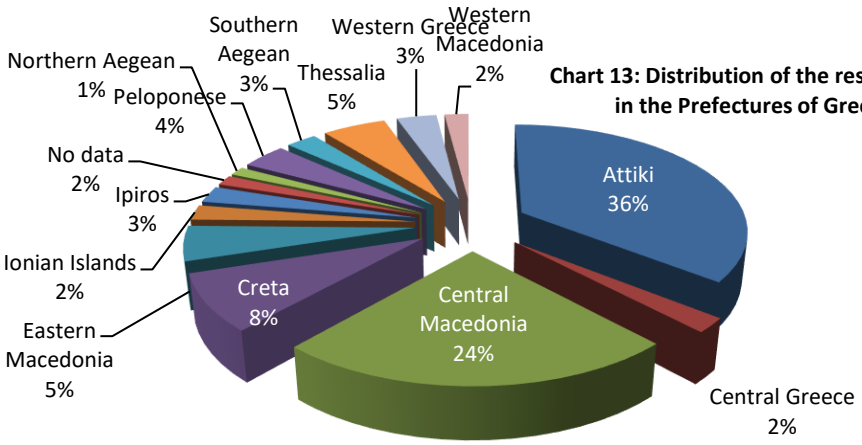


Chart 13: Distribution of the respondents in the Prefectures of Greece

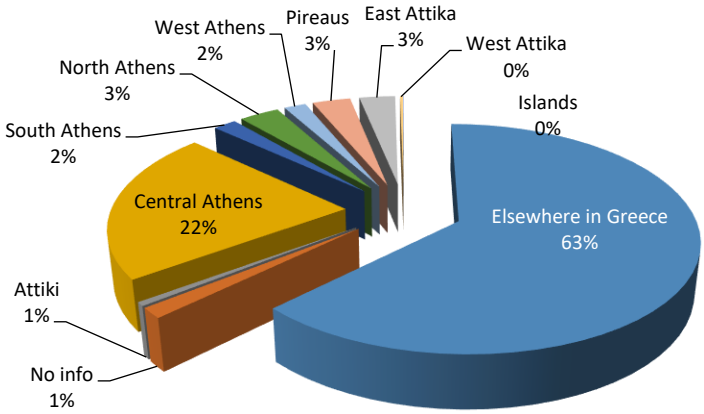


Chart 14: Distribution of the respondents in Attiki in comparison to elsewhere in Greece.

Chart 15: Eastern Macedonia Distribution

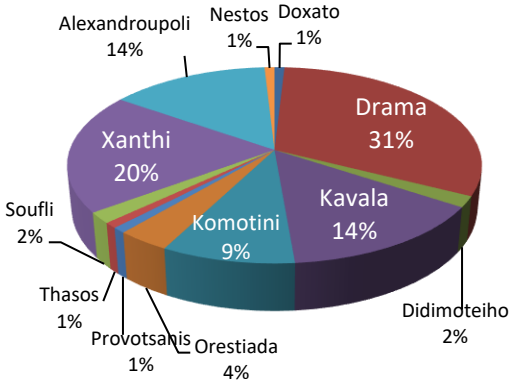


Chart 16: Western Macedonia Distribution

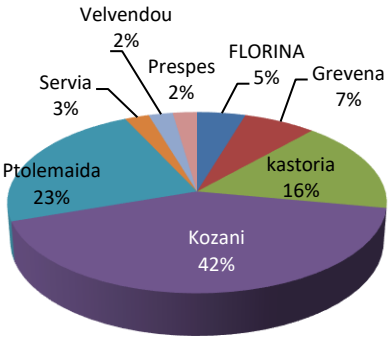


Chart 17: Central Macedonia Distribution

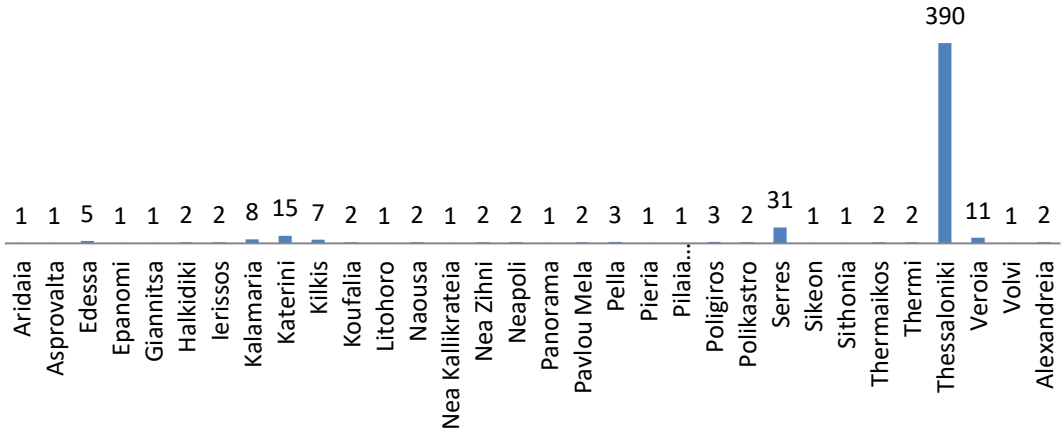


Chart 18: Distribution in Ipiros: (2% of the total participants)

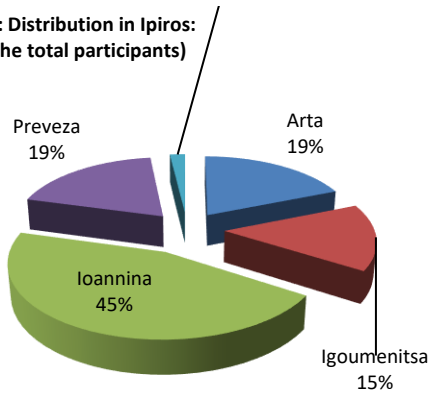


Chart 19: Distribution in Thessalia: (5% of the participants)

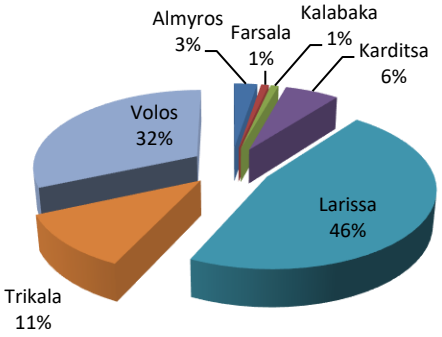


Chart 20: Distribution in Ionian Islands: (2% of the participants)

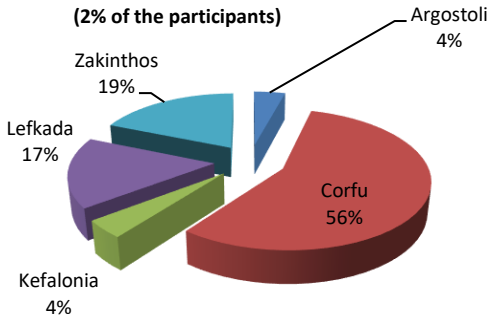


chart 21: Distribution in Western Greece: (3% of the participants)

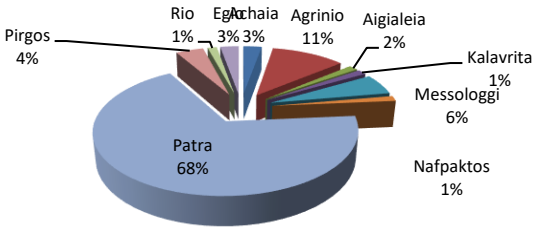
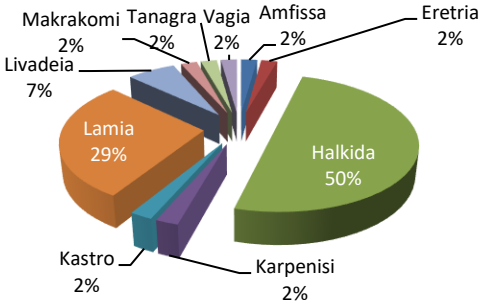


Chart 22: Distribution in Central Greece (2% of the participants)



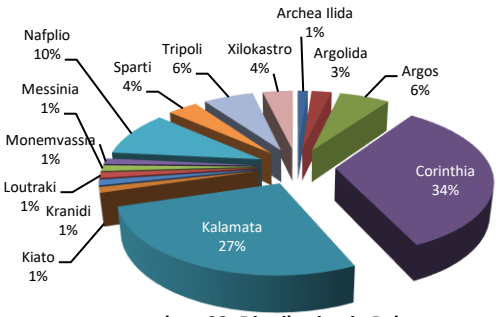


chart 23: Distribution in Peloponese: (4% of the participants)

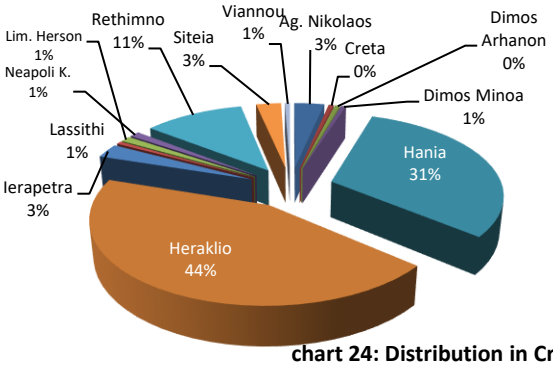
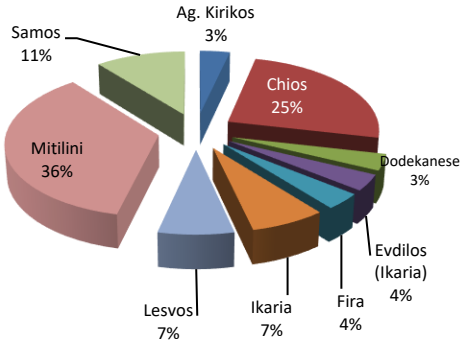


chart 24: Distribution in Creta: (8% of the participants)

Chart 25: Distribution in Northern Aegean: (1% of the participants)



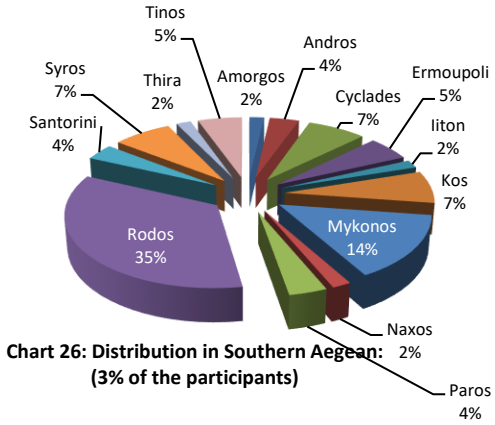


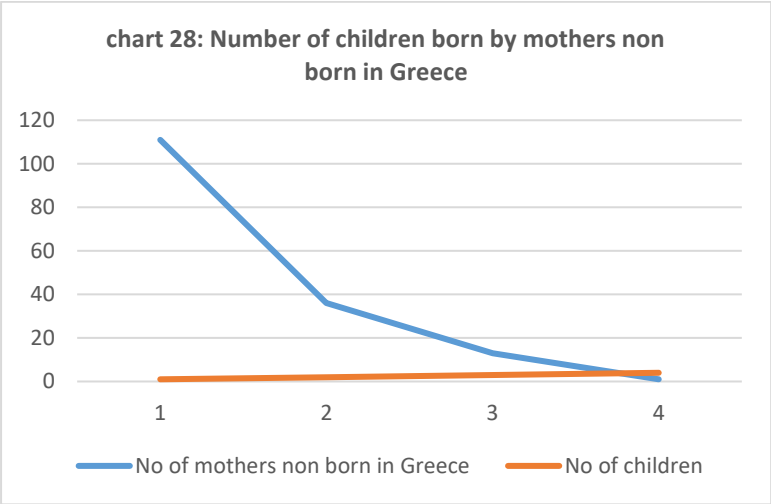
Chart 26: Distribution in Southern Aegean: (3% of the participants)

Respondents non-born in Greece

As concerns the number of respondents who were not born in Greece but live in Greece, chart 27 below shows the number of years they have been in Greece. The lowest is 6 months (n=1) and the longest is 40 years (n=1). The average is 20.21795 years.

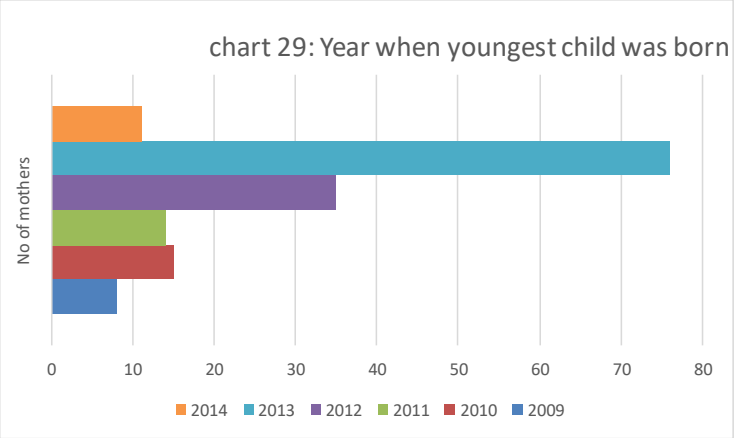
Characteristics of mothers non-born in Greece.

Mothers who were born outside Greece (n=161) had more than 1 children. The majority (n=111) had 1 child while 36 of them had 2 children, 13 of them had 3 children and one of them 4 children. On average non-born in Greece mothers had 1.385 children. Chart 28 shows the tendency. None of them was pregnant at the time.



Their youngest child was born between the years 2009 and 2014. The distribution over the years shows below & in chart 29.

year of birth of their youngest child	No of mothers
2009	8
2010	15
2011	14
2012	35
2013	76
2014	11
Total answers	159



In chart 30 you see the week of pregnancy in which they gave birth to their child. 118 (74.68%) of them mentioned no problems during pregnancy while 40 of them (25.82%) had problems during pregnancy. Of the 131 respondents who gave information about the place of birth of their last baby, only 1 gave birth in a birth center (in Thessaloniki), 4 said other and 126 of them gave birth in a maternity hospital (78.26%). 128 of them (81.01%) of them gave information about the hospital.

Chart 30: How many weeks pregnant were you when your youngest child was born?

Week	25	29	34	35	36	37	38	39	40	41	42	43
No mothers	1	1	4	3	8	15	21	48	33	10	2	1

Characteristics of mothers born in Greece

Mothers who were born in Greece (n=1928) had more than 1 children. There was only one mother who gave birth at the 40th week of pregnancy but had no child. This mother, whose child possibly died was also included in the respondents as she also had the experience of the maternity care service and her satisfaction experience was considered significant to be examined. The majority (n=1254) had 1 child while 551 of them had 2 children, 102 of them had 3 children, 16 had 4 children, 3 had 5 children and one of them had 6 children. On average, born in Greece mothers had 1.424 children, a slightly higher rate in comparison to the non-born in Greece mothers.

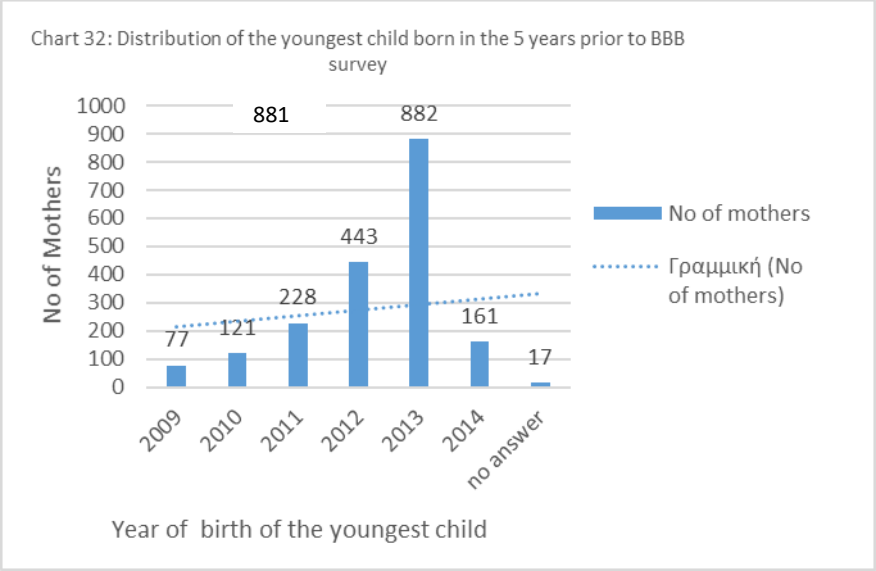
Chart 31 shows the results. None of them was pregnant at the time.

Chart 31

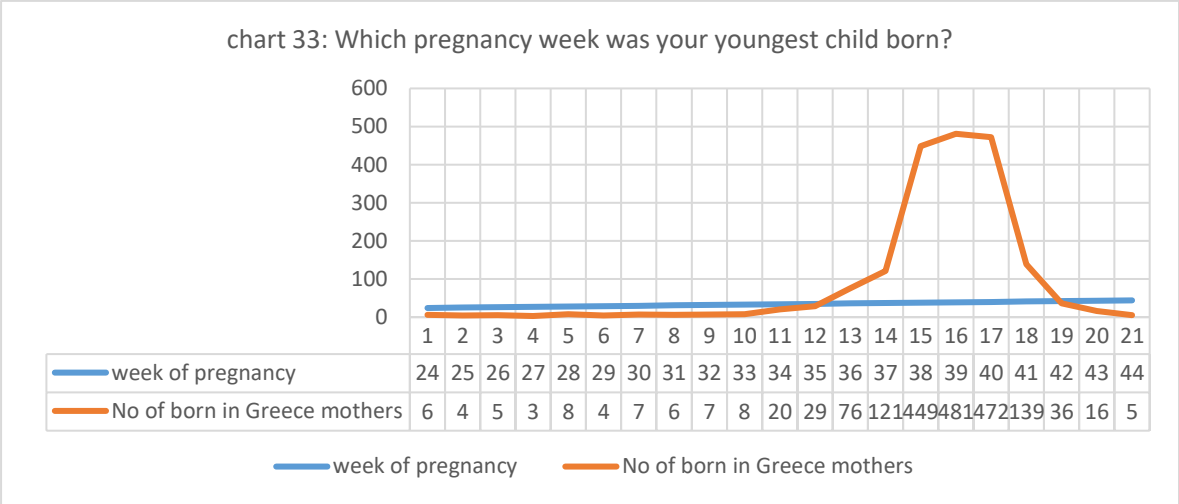
No of Greece-born mothers	1254	551	102	16	3	1	1
No of children each gave birth to	1	2	3	4	5	6	0

Number of children born by Respondents-Mothers Born in Greece during the 5 years prior to the survey was 2.748 giving an average of 1.424 children per mother.

Chart 32 shows the distribution of the youngest child born in the 5 years prior to BBB survey that is between the years 2009-2014



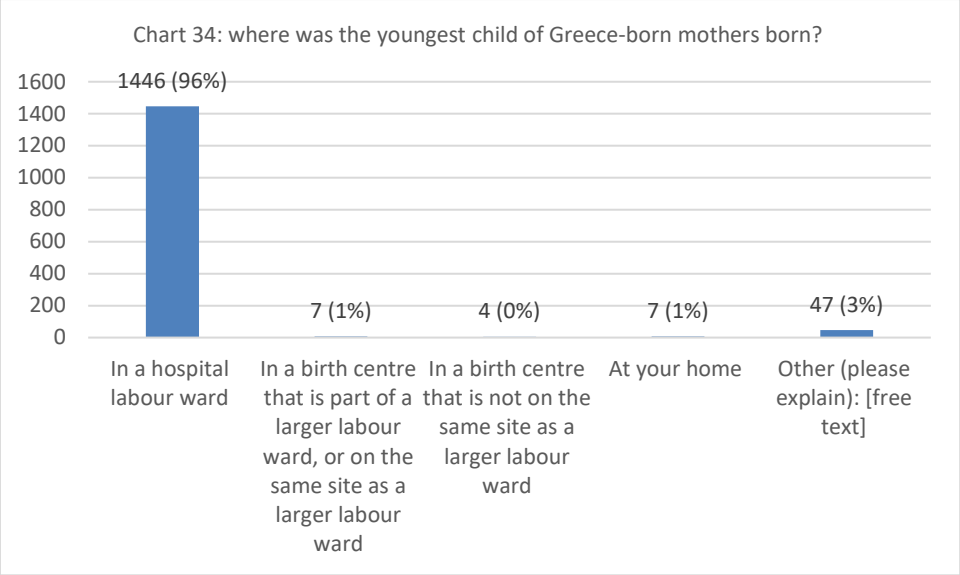
In chart 33 you see the week of pregnancy in which the youngest child of the respondents was born.



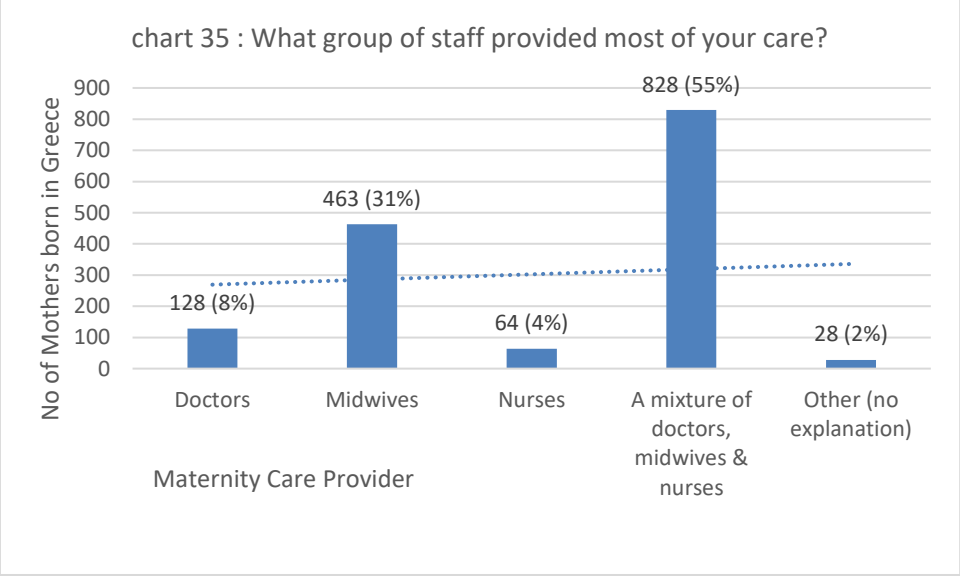
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
week of pregnancy	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
No of born in Greece mothers	6	4	5	3	8	4	7	6	7	8	20	29	76	121	449	481	472	139	36	16	5

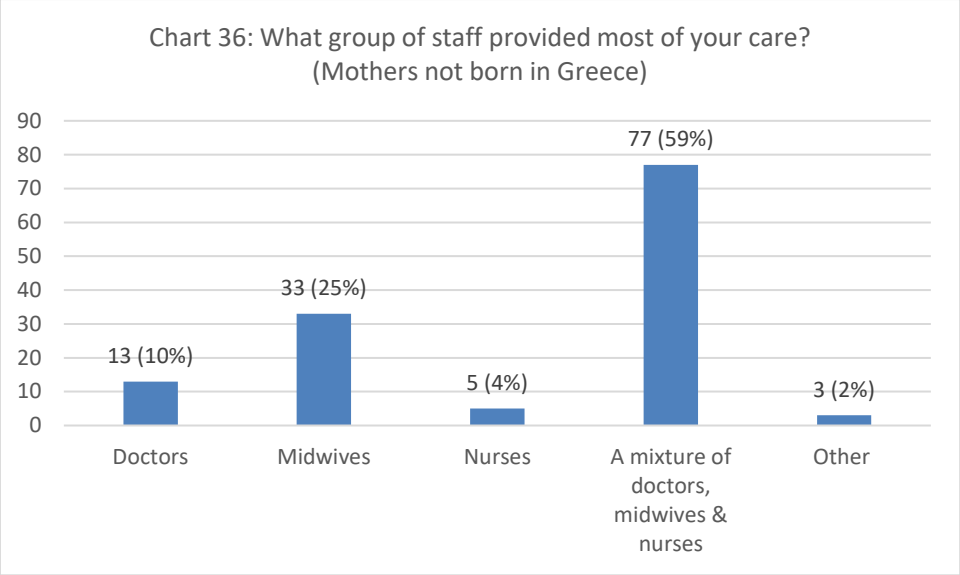
Of the 2302 mothers born in Greece who answered the questions whether they had any problem during pregnancy, 450 mothers mentioned they had problems during pregnancy (19.539%) while the rest 1852 mothers (80.46%) mentioned no problem during their pregnancy.

Of the 1511 respondents who gave information about the place of birth of their youngest baby, the great majority of babies were born in a hospital labour ward (96%) and only 7 babies were born at home (1%). Among the general population there is no difference between a birth center as part of a larger labour ward on the same site and that not on the same site, which explains the low score in options 2 and 3. Strangely, there are not any birth centers in Greece officially, so perhaps this part needs further exploration as to what the respondents mean.



As concerns the group of staff that provided most of the care, chart 35 shows the results for the mothers born in Greece. (Number of respondents: 1,512 mothers) and chart 36 the results for the mothers non-born in Greece. (Number of respondents: 131 mothers)





Comparing the two charts, we see that there are the same tendencies in both groups, with the mixture of doctors, midwives and nurses to gain ground over one maternity care provider offering maternity care to the mother. In chart 36, mothers mentioned that of the 3 other places, 1 was a private clinic where a mixture of care professionals offered their services, 1 was a homebirth where there was a GP (General Practitioner) doctor and a midwife and 1 was a hospital ward and the care was offered by midwives and nurses.

In chart 39, you can see the list of problems that the respondents (all mothers who gave birth to their babies in Greece) mentioned. Some respondents mentioned more than one problems. In such cases, all problems were listed under the appropriate category.
The top four problems mentioned were
1. Placenta abruption (19.74%),
2. Gestational diabetes (13.65%)
3. Premature contractions (12.39%)
4. Hemorrhage (9.45%).

It is interesting that some of the respondents mentioned that a twin pregnancy was a problem during pregnancy.

The majority of all mothers who mentioned they had problems during pregnancy gave birth in a Maternity Hospital (see chart 37 for details).

A total of 1616 respondents provided the name of the city they gave birth to their youngest child. The distribution is over 52 cities all over Greece, and 3 mentioned their child was born at home. The respondents mentioned 244 birthing places distributed all over Greece and 44 more individuals. However, the reliability of these data collected is not high as the respondents used different names to refer to the place and different postal codes were spotted to refer to the same birthing place. More investigation needs to be made for reliable conclusions on this specific aspect. The same holds true of the 44 individuals mentioned. The vast majority mentions the first name only and there are a lot among the 44 of them bearing the same first name. We may guess that these individuals are midwives offering homebirth. Furthermore, it is usual for a midwife to travel to different parts of Greece and offer homebirth to birthing mothers. Thus, it is not clear whether the number of individuals is actually 44 different ones or a smaller number travelling and caring in more than one cases.

Chart 37: Birthing place of all mothers who gave birth in Greece and had problems during pregnancy

Year	No of mothers who had problems	Maternity Hospital	Home	Birth center	other	No answer
2009	15	11	-	-	1	3
2010	33	29	-	-	2	2
2011	57	44	-	-	1	14
2012	109	86	-	-	7	16
2013	229	177	-	2	11	39
2014	47	36	-	-	2	9

In the following charts, you can see the distribution of births over the years (chart 38) and a more detailed list of problems mentioned during pregnancy by the respondents (chart 39).

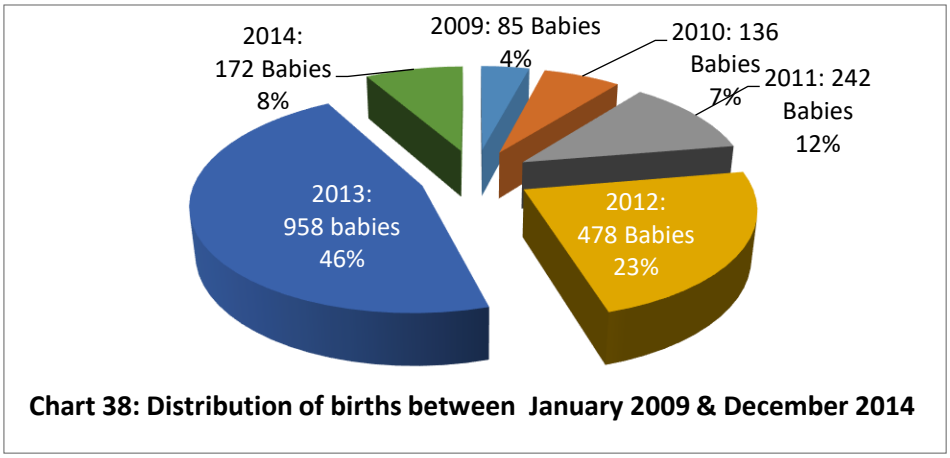
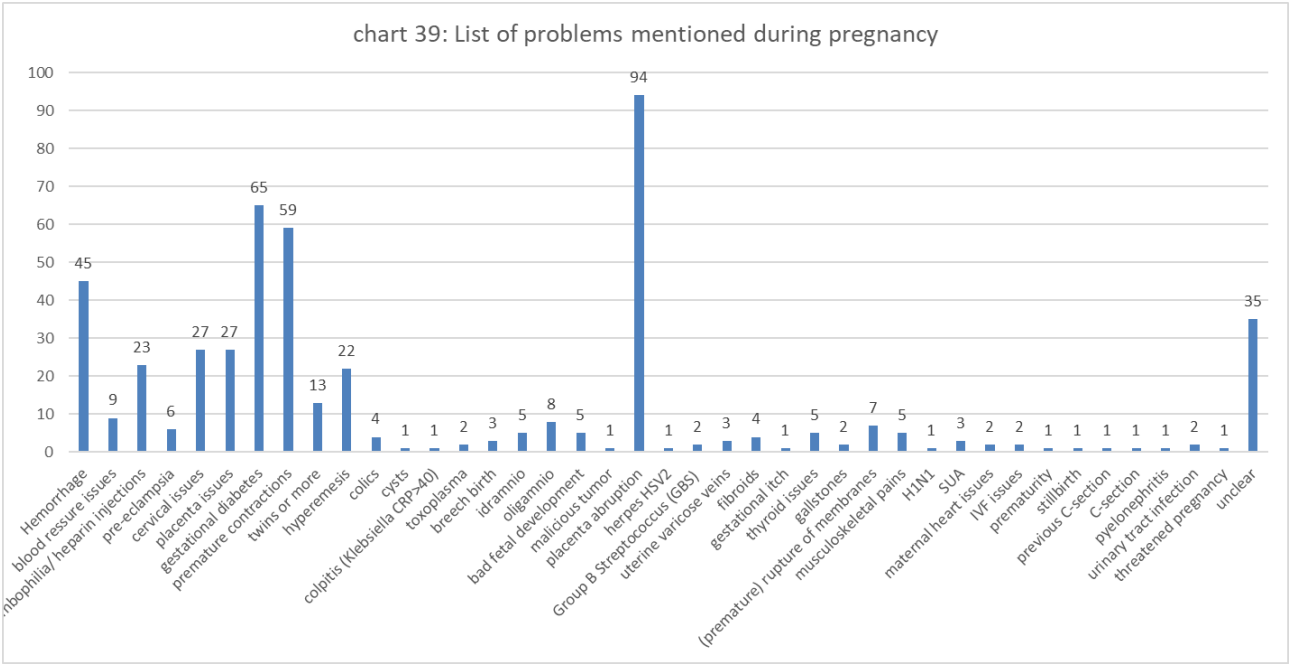


Chart 38: Distribution of births between January 2009 & December 2014



Evaluation of Maternity Care

Mothers' perceptions of positive childbirth experiences

Survey question 14 asked the participants about the three best things about the care they got in the birth place while question 15 asked them to write about the three changes they would make in the care they had, if they had the power to make any changes. In both cases the survey asked to put the answers in order of importance.

A total of 2089 questionnaires were coded and the total number of answers in this sample was 4205. Most of the participants provided fewer than 3 answers to the question and a small percentage did not give any answer at all. Some answers included reference to more than one themes. In these cases, each partial answer was included under the specific theme. The average number of questions answered per woman was 1.4 and the answer percentage raised to 67%.

For the evaluation of the answers, efforts were made to follow the rationale of the survey. We followed the "Word of Mouth" Model, as presented earlier as a guiding tool for organizing our categories. Thus, we arranged the answers in 7 major categories, 5 of which measured the service quality dimensions of A. Empathy, B. Reliability, C. Responsiveness, D. Assurance, E. Tangibles, the 6th category was created to provide for any issues of person-centered care and the 7th category was created to accommodate all other issues as explained in the table below.

The large categories A-E were then subdivided to measure specific themes of satisfaction mentioned. It was a challenge to interpret the way the respondents used specific concepts such as support, good etc as these terms may belong to a number of spheres. For example a good doctor may be a knowledgeable and experienced doctor (category D: assurance) but also may mean that the doctor looked for the best of mothers/babies' interests or understands the needs or provides emotional support etc. in which case it should be arranged under the category A: Empathy. There were also answers that had a rather neutral meaning (e.g. clinic) or did not make clear the content of the message (e.g. provision of support). In such a case different populations expect different quality of support and what one thinks of as good another may consider bad. The author had to make a decision to place specific answers like these mentioned above under the category she thinks as most appropriate bearing in mind that the survey questions asked for the 3 best things related to their birth experience. This challenge reveals the need for more detailed research.

Table 1: Table of categories and subcategories used to evaluate Q14

Content categories

- **A. Empathy**
  1. The caring staff offer personalized attention
  2. The caring staff understand the needs of mothers & babies and respect their individuality
     - a. Rooming in and support of mother-baby contact & bonding after birth
     - b. Pain relief
     - c. Post birth care of mother
  3. Provision of emotional support and understanding
  4. The caring staff show sincere interest

5. The caring staff look for the best of the mothers/ babies' interests

B. Reliability

1. The ability to perform the promised service dependably and accurately. High quality of care
    a. Facilitation of natural childbirth
    b. no invasive interventions
2. Any and all services are carried out the right way offering a sense of security

C. Responsiveness

1. The caring staff showed willingness to respond to any need
2. The caring staff responds quickly
3. The caring staff spends time with the mother and answers questions, offers Informational support

D. Assurance

1. The caring staff are knowledgeable and experienced
    a. Breastfeeding support
    b. Childcare & newborn health support
2. The caring staff are courteous and friendly
3. The caring staff are respectful and treating mothers/ babies with dignity
4. The caring staff are willing to explain thoroughly medical conditions

E. Tangibles

1. The environment is comfortable, quiet, friendly & loving
2. The environment is clean
3. The birth setting is equipped with up-to-date equipment
4. The rooms are clean and comfortable
5. Organizational aspects of care provision
    a. Short stay in hospital
    b. Visiting hours
    c. Father or close person being present at birth
    d. Food
    e. Cost (good value for money)
    f. Private room or alone in the room

F. Person-Centered Care

1. Involvement of birthing mother in decision making
2. The accomplishment of birth (baby/mother co-synergy that works)

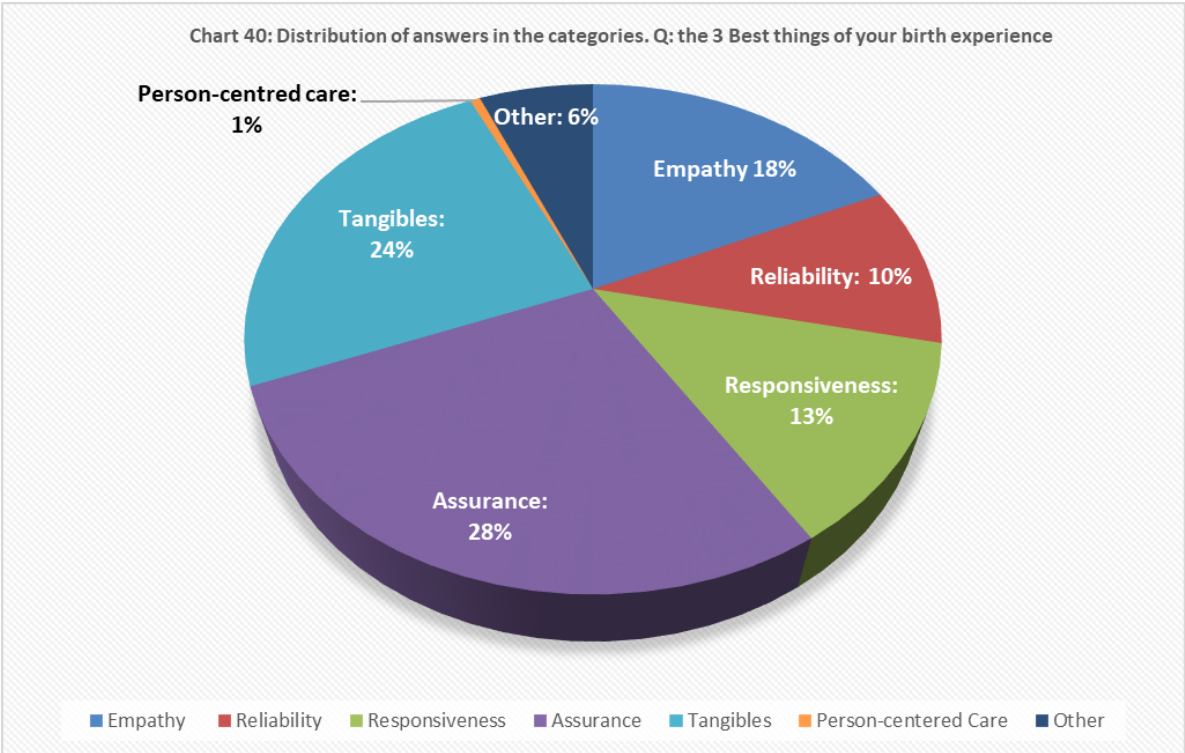
G. **Other**

1. There is nothing good
2. No need to change
3. Vague answers
4. No answer
5. Negative comments

Analysis of the observations based on the findings

Distribution of the answers under the above mentioned categories. See also chart 40.

Empathy	Reliability	Responsiveness	Assurance	Tangibles	Person-Centered Care	Other
764	430	533	1174	1012	23	269



The category Assurance gathered most of the answers (28%), followed by the category Tangibles (24%). Charts 41 – 47 below show the distribution of the answers in the subcategories in order of size.

Chart 41: Assurance

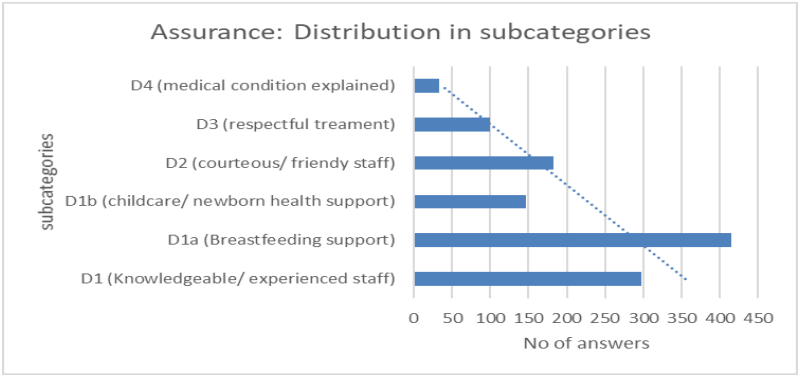


Chart 42: Tangibles

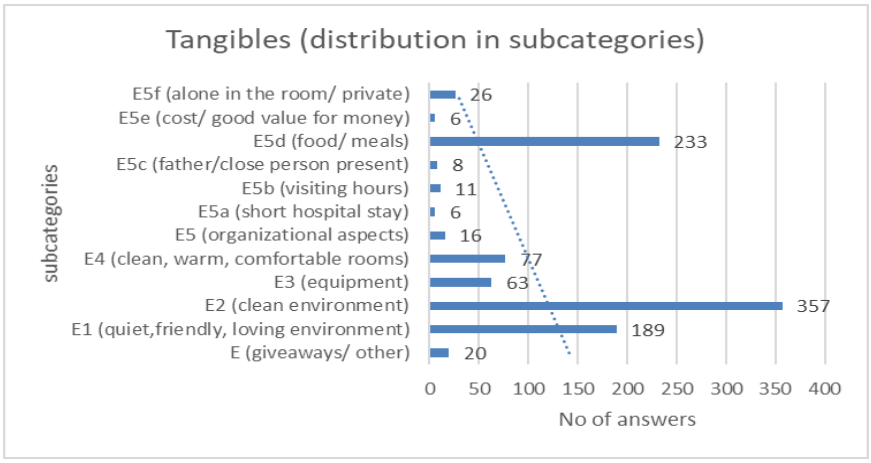


Chart 43: Empathy

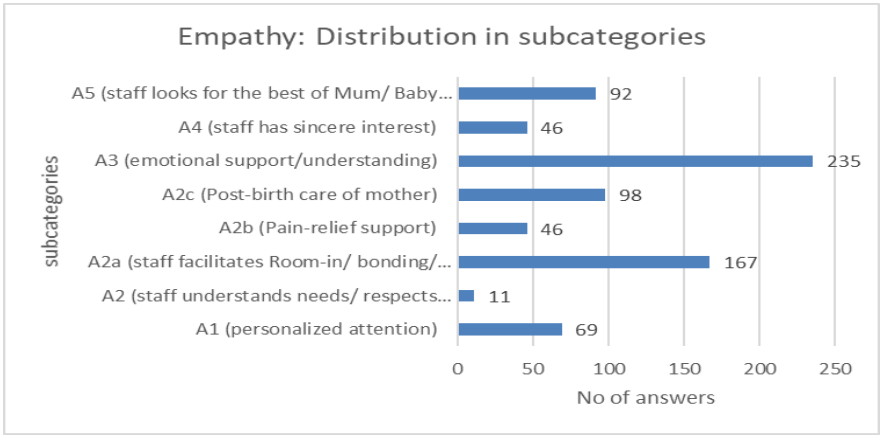


Chart 44: Responsiveness

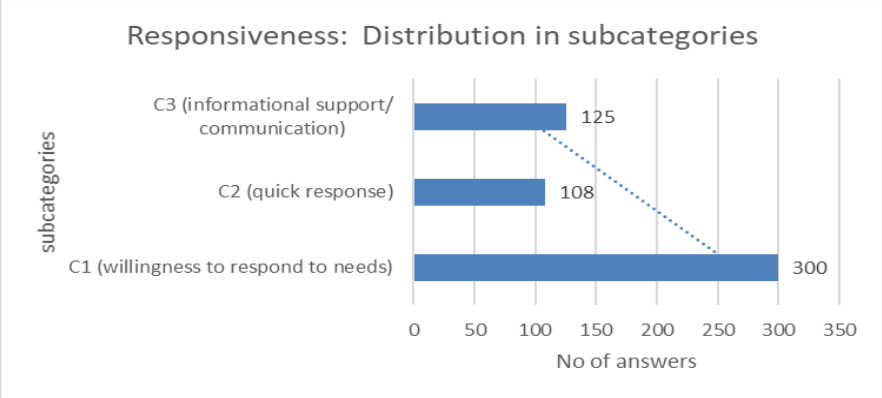


Chart 45: Reliability

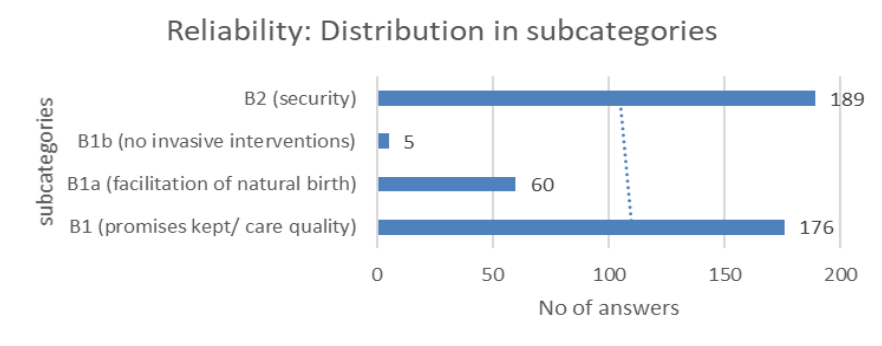


Chart 46: Other

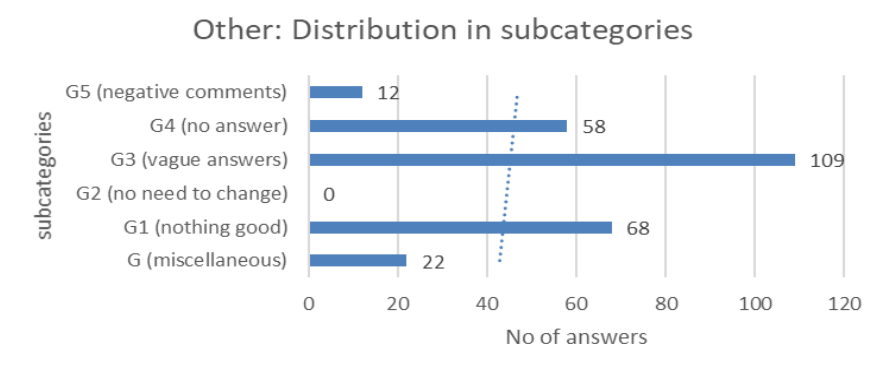
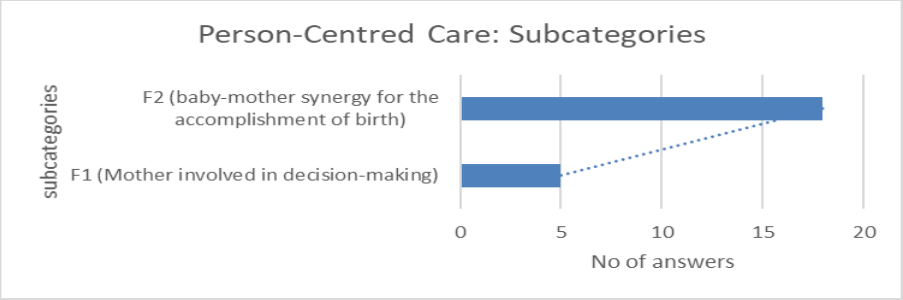


Chart 47: Person-Centered Care



However, to have a better idea of the Person-Centered Care, we need to add to the above category F some more subcategories existing under the other themes. In this case, (chart 48) the respondents express their –even indirect- preference for person-centered care.

Chart 48: Person-centered care (expanded)

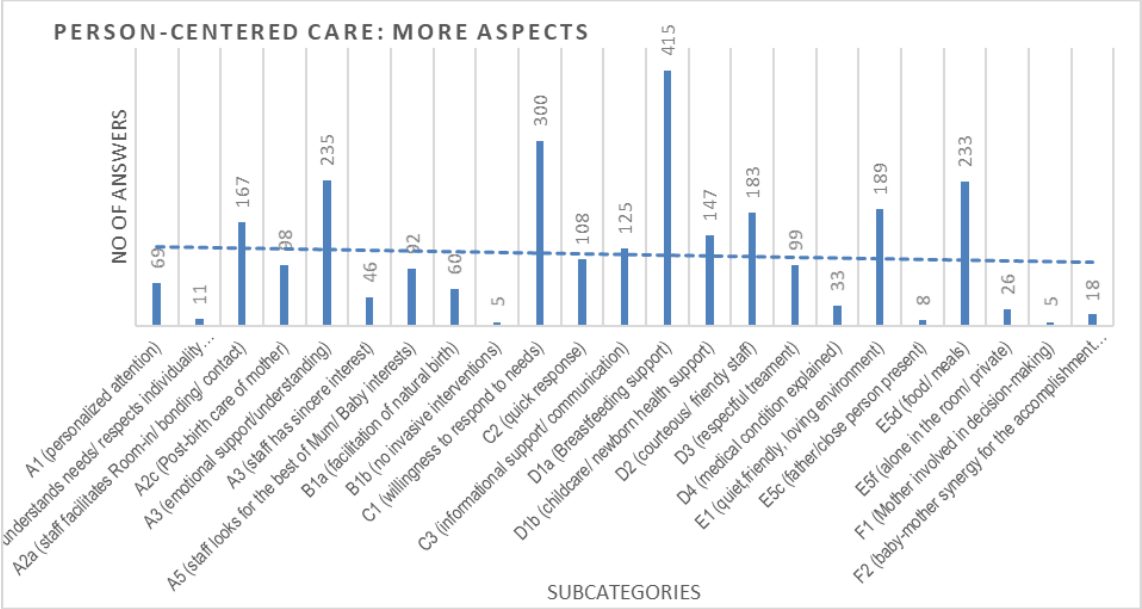


Table 2

Table 2: The best things about care received at the place of birth - characteristic answers and their frequencies	No of answers (frequencies)	%
D1a (Breastfeeding support)	415	9.86%
E2 (clean environment)	357	8.48%
C1 (willingness to respond to needs)	300	7.13%
D1 (Knowledgeable/ experienced staff)	297	7.06%
A3 (emotional support/understanding)	235	5.58%
E5d (food/ meals)	233	5.54%
B2 (security)	189	4.49%
E1 (quiet,friendly, loving environment)	189	4.49%
D2 (courteous/ friendly staff)	183	4.35%
B1 (promises kept/ care quality)	176	4.18%
A2a (staff facilitates Room-in/ bonding/ contact)	167	3.92%
D1b (childcare/ newborn health support)	147	3.49%
C3 (informational support/ communication)	125	2.97%

G3 (vague answers)	109	2.59%
C2 (quick response to needs)	108	2.56%
D3 (respectful treament)	99	2.35%
A2c (Post-birth care of mother)	98	2.33%
A5 (staff looks for the best of Mum/ Baby interests)	92	2.18%
E4 (clean, warm, comfortable rooms)	77	1.83%
A1 (personalized attention)	69	1.64%
G1 (nothing good)	68	1.61%
E3 (equipment)	63	1.49%
B1a (facilitation of natural birth)	60	1.42%
G4 (no answer)	58	1.37%
A2b (Pain-relief support)	46	1.08%
A4 (staff has sincere interest)	46	1.08%
D4 (medical condition explained)	33	0.78%
E5f (alone in the room/ private)	26	0.61%
G (miscellaneous)	22	0.52%
E (giveaways/ other)	20	0.47%
F2 (baby-mother synergy for the accomplishment of birth)	18	0.42%
E5 (organizational aspects)	16	0.38%
G5 (negative comments)	12	0.28%
A2 (staff understands needs/ respects individuality of Mum & Baby)	11	0.26%
E5b (visiting hours)	11	0.26%
E5c (father/close person present)	8	0.19%
E5a (short hospital stay)	6	0.14%
E5e (cost/ good value for money)	6	0.14%
B1b (no invasive interventions)	5	0.11%
F1 (Mother involved in decision-making)	5	0.11%
G2 (no need to change)	0	0.00%
	4205	99.74%

Looking at the experiences that the respondents described as best birth experiences, we see that the first 7 ones come up to 52.63%.

D1a (Breastfeeding support)	415	9.86%
E2 (clean environment)	357	8.48%
C1 (willingness to respond to needs)	300	7.13%
D1 (Knowledgeable/ experienced staff)	297	7.06%
A3 (emotional support/understanding)	235	5.58%
E5d (food/ meals)	233	5.54%
B2 (security)	189	4.49%

Support and guidance as to breastfeeding comes first best birth experience followed by being in a clean environment, surrounded by caring staff that is willing to respond to the needs, know what they are doing and provide emotional support and understanding, enjoying good meals

and feeling secure as a result of services being carried out the right way. Being with the child or the newborn care comes much lower on the list of best birth experiences.

The changes I would make

A total of 2089 questionnaires were coded and the total number of answers in this sample was 3363. Most of the participants provided fewer than 3 answers to the question and a small percentage did not give any answer at all. Some answers included reference to more than one themes. In these cases, each partial answer was included under the specific theme. Thus, the total number of answers coded rose to 3,491. The average number of questions answered per woman was 1.12 and the answer rate raised to 53,66% (or 55.70% if we calculate the total number of answers coded)

For the evaluation of the answers, efforts were made to follow the rationale of the survey. We followed the same "Word of Mouth" Model, as presented earlier as a guiding tool for organizing our categories. Thus, we arranged the answers in 7 major categories, 5 of which measured the service quality dimensions of A. Empathy, B. Reliability, C. Responsiveness, D. Assurance, E. Tangibles the 6th category was created to provide for any issues of person-centered care and the 7th category was created to accommodate all other issues as explained in the table below.

The large categories A-E were then subdivided to measure specific themes of satisfaction mentioned. It was a challenge to interpret the way the respondents phrased their answers. For example in category A2b (as seen below table 3) when mentioned "pain relief" it was not a clear answer as to whether they would change "pain relief" policy and have it replaced by a more natural, less medicalized one, or whether they needed pain relief or another aspect. Such answers were included and the author had to make a decision to code such answers under the most appropriate category bearing in mind that the survey questions asked for the 3 changes they would make if they were given the power to do so. This challenge reveals the need for more detailed research.

Table 3: Table of categories and subcategories used to evaluate Q15 as adapted to organize the answers collected

Content categories

A. Empathy

1. The caring staff should offer personalized attention, continuity of care
2. The caring staff should understand the needs of mothers & babies and respect their individuality (attitudinal change)
    a. Rooming in and support of mother-baby contact & bonding after birth should be encouraged and facilitated
    b. Pain relief
    c. Post birth care of mother
3. Provision of emotional support and understanding should be offered by the caring staff
4. The caring staff should show sincere interest
5. The caring staff should look for the best of the mothers/ babies' interests

B. Reliability

1. The birthing place and the caring staff should have the ability to perform the promised service dependably and accurately.
    a. They should sincerely encourage & facilitate natural childbirth
    b. They should avoid invasive interventions
2. Any and all services should be carried out the right way offering a sense of security

C. Responsiveness

1. The caring staff should show willingness to respond to any need
2. The caring staff should respond quickly
3. The caring staff should spend time with the mother and answer questions, offering Informational support

D. Assurance

1. The caring staff (obstetricians, pediatricians, anesthesiologists, neonatologists, midwives, nurses) should be knowledgeable and experienced
    a. They should offer breastfeeding support and training ethically (not boycott it or promote formula)
    b. They should offer Childcare & newborn health support & train mothers how to do so themselves
2. The caring staff should be courteous and friendly
3. The caring staff should be respectful and treating mothers/ babies with dignity
4. The caring staff should be willing to explain thoroughly medical conditions and do so

E. Tangibles

1. The environment should be comfortable, quiet, friendly & loving
2. The environment should be clean
3. The birth setting should be equipped with up-to-date equipment
4. The rooms should be clean, quiet and comfortable
5. Organizational aspects of care provision should provide
    a. Short stay in hospital
    b. Well thought of visiting hours
    c. For Father or close person to be present at birth
    d. That Food is appropriate to the needs of nursing mums
    e. The Cost is good value for money without hidden extras
    f. There is privacy
    g. That there are no shortages of staff or materials
    h. That room temperature is appropriate

F. Person-Centered Care

1. Birthing mothers should be asked, informed and included in decision making

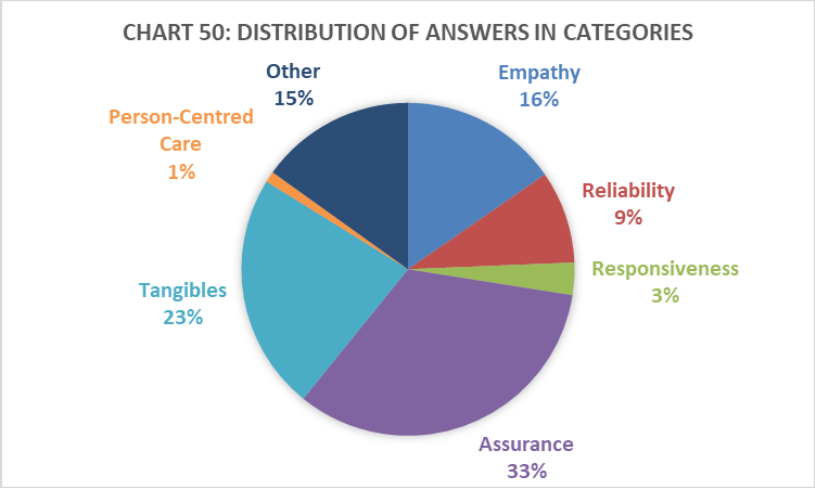
G. **Other**

1. I would change birth setting
2. All good. No need to change
3. Vague answers
4. No answer
5. I would change behavior

Analysis of the observations based on the findings

Distribution of the answers under the above mentioned categories. See also chart 50.

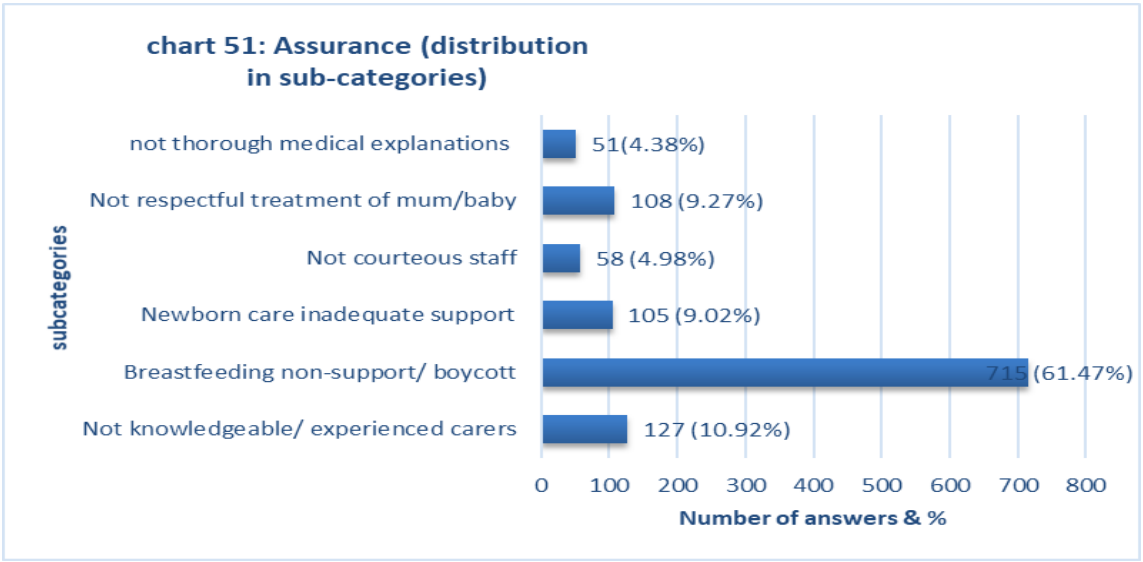
Empathy	Reliability	Responsiveness	Assurance	Tangibles	Person-Centered Care	Other
536	314	110	1164	805	37	525



There is a difference between the number of responses received (No=3363) and the aggregate shown here (No= 3491). This difference is because, as already said, the same respondent mentioned more than one change in one answer and all of them were coded under the appropriate category/ subcategory. The new arrangement in terms of priority is shown below:

Assurance	Tangibles	Empathy	Other	Reliability	Responsiveness	Person-Centered Care
33%	23%	16%	15%	9%	3%	1%

Charts 51 – 56 below show the distribution of the answers in the subcategories in order of size.



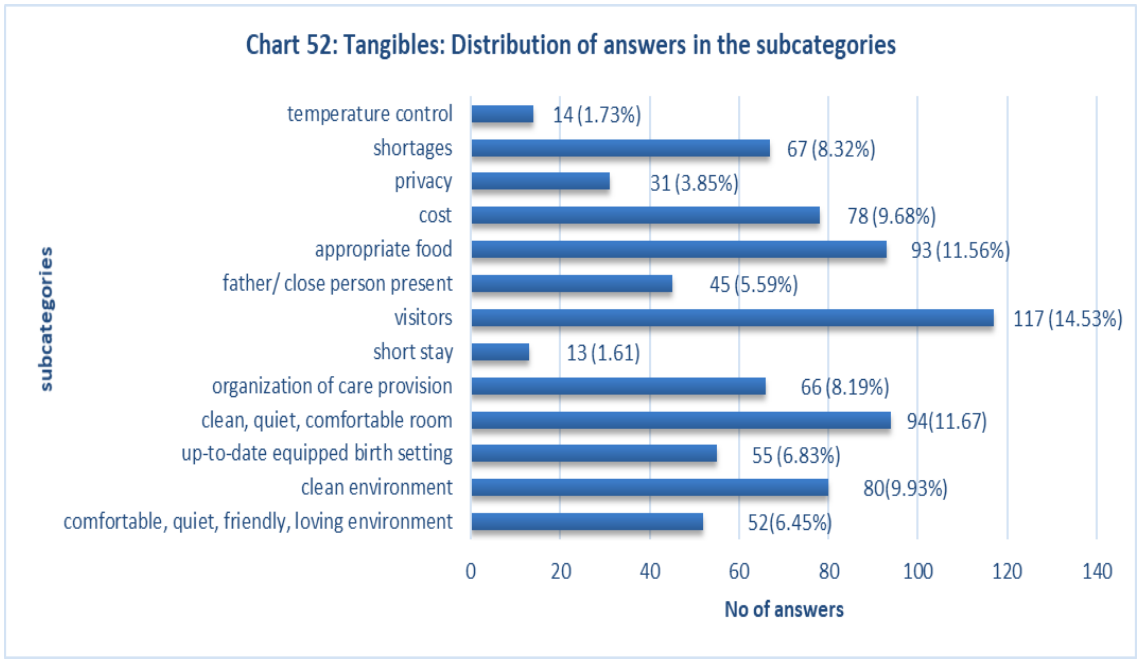


Chart 52: Tangibles: Distribution of answers in the subcategories
subcategories
temperature control
shortages
privacy
cost
appropriate food
father/ close person present
visitors
short stay
organization of care provision
clean, quiet, comfortable room
up-to-date equipped birth setting
clean environment
comfortable, quiet, friendly, loving environment
14 (1.73%)
67 (8.32%)
31 (3.85%)
78 (9.68%)
93 (11.56%)
45 (5.59%)
117 (14.53%)
13 (1.61)
66 (8.19%)
94(11.67)
55 (6.83%)
80(9.93%)
52(6.45%)
0
20
40
60
80
100
120
140
No of answers

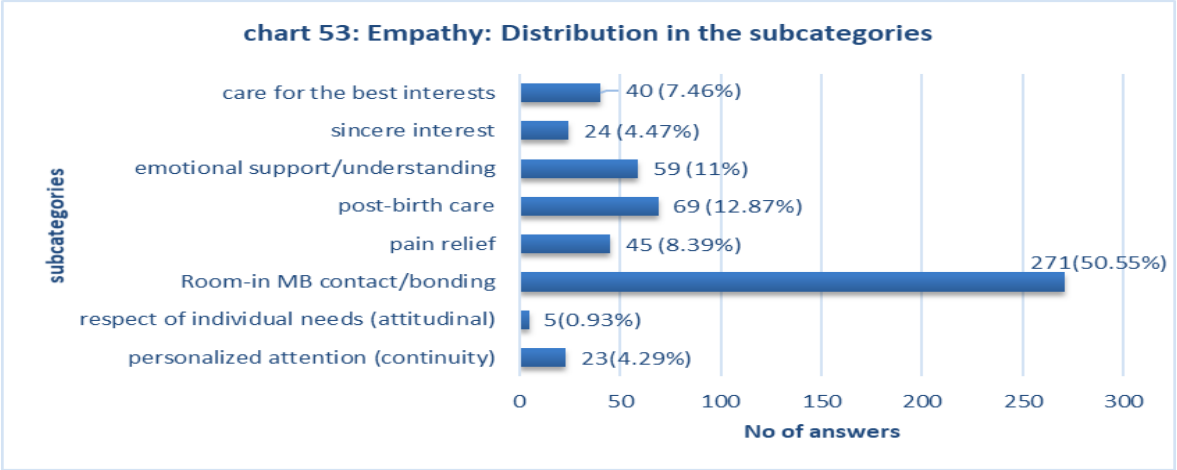
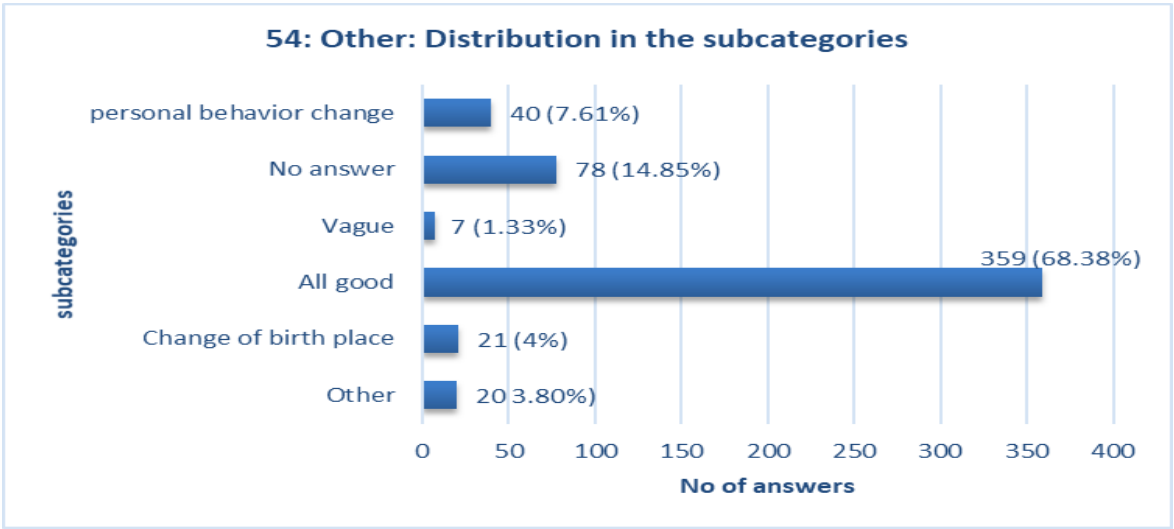


chart 53: Empathy: Distribution in the subcategories
subcategories
care for the best interests
sincere interest
emotional support/understanding
post-birth care
pain relief
Room-in MB contact/bonding
respect of individual needs (attitudinal)
personalized attention (continuity)
40 (7.46%)
24 (4.47%)
59 (11%)
69 (12.87%)
45 (8.39%)
271(50.55%)
5(0.93%)
23(4.29%)
0
50
100
150
200
250
300
No of answers


54: Other: Distribution in the subcategories
subcategories
personal behavior change
No answer
Vague
All good
Change of birth place
Other
40 (7.61%)
78 (14.85%)
7 (1.33%)
359 (68.38%)
21 (4%)
20 3.80%)
0
50
100
150
200
250
300
350
400
No of answers

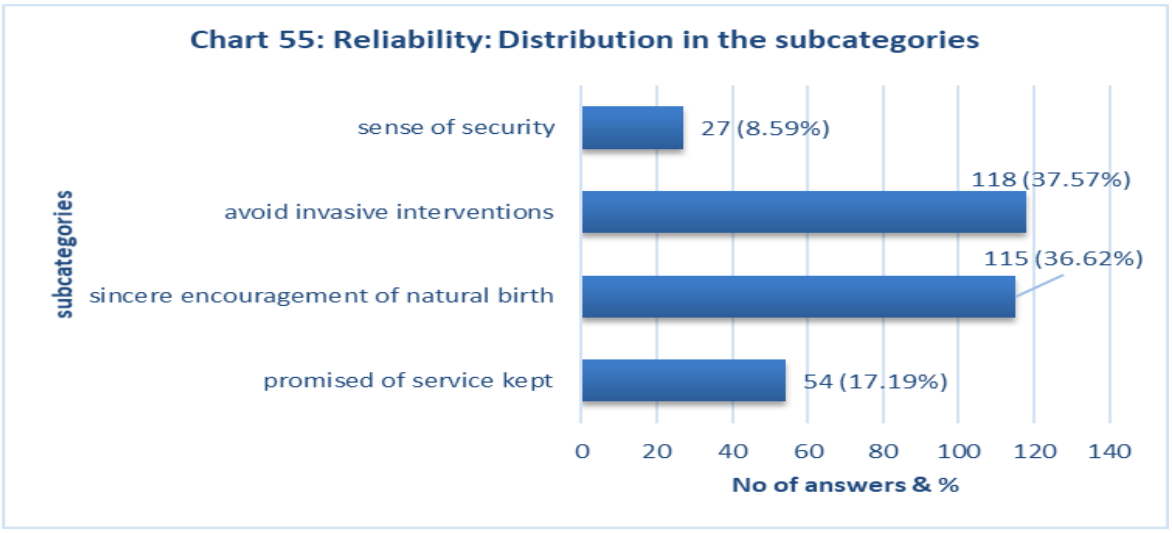


Chart 55: Reliability: Distribution in the subcategories
sense of security
27 (8.59%)
avoid invasive interventions
118 (37.57%)
sincere encouragement of natural birth
115 (36.62%)
promised of service kept
54 (17.19%)
subcategories
0
20
40
60
80
100
120
140
No of answers & %

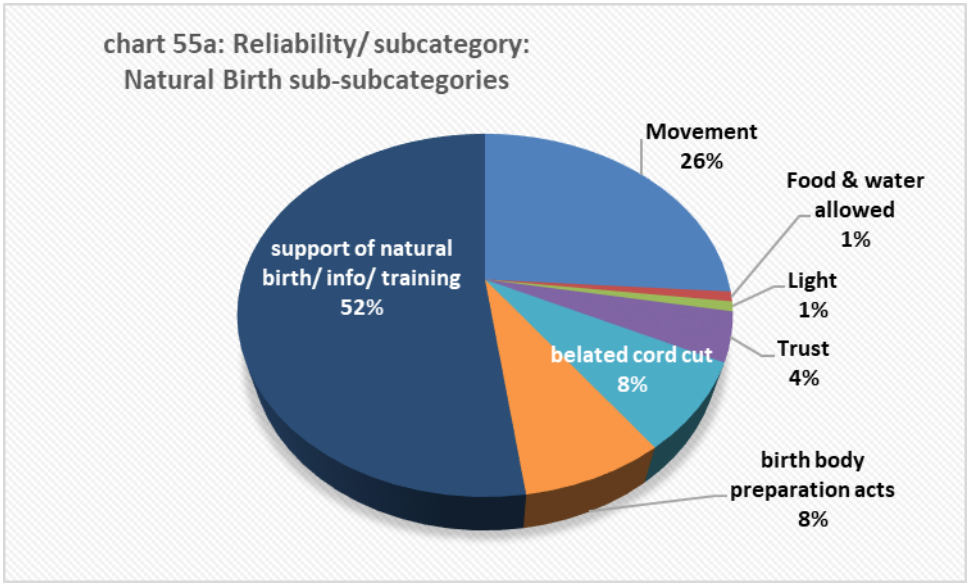


chart 55a: Reliability/ subcategory:
Natural Birth sub-subcategories
Movement
26%
Food & water
allowed
1%
Light
1%
Trust
4%
belated cord cut
8%
birth body
preparation acts
8%
support of natural
birth/ info/ training
52%

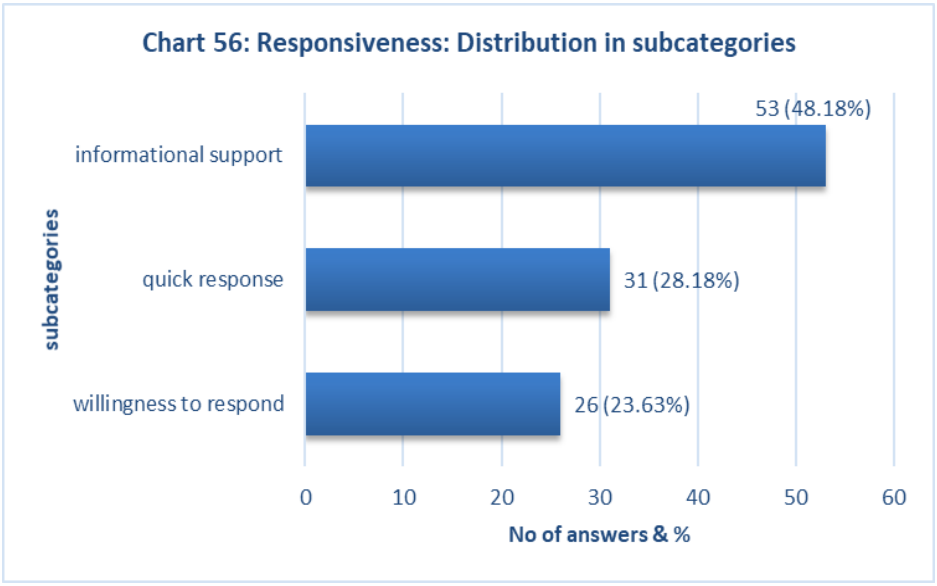


Chart 56: Responsiveness: Distribution in subcategories
informational support
53 (48.18%)
quick response
31 (28.18%)
willingness to respond
26 (23.63%)
subcategories
0
10
20
30
40
50
60
No of answers & %

Table 4: List of changes proposed by the respondents in order of frequency	No of responses	%
Breastfeeding should be supported/ no boycott/ formulas	715	20.48%
All is good, do not change anything	359	10.28%
Room-in MB contact/bonding should be supported	271	7.76%
The carers (OBG, pediatricians, midwives, nurses, anesthesiologists, neonatologists) should be knowledgeable, ethical and experienced	127	3.63%
Avoid invasive interventions	118	3.38%
Visiting policy should be well thought-of	117	3.35%
Mum/baby should be treated with respect & dignity	108	3.09%
Newborn care support & training should be better	105	3%
Rooms should be clean, quiet, comfortable (no noise in the corridors, good beds, clean linen, hygiene…)	94	2.69%
Appropriate food (menus to support breastfeeding/ vegetarians)	93	2.66%
Clean environment everywhere	80	2.29%
Cost (no hidden costs, no extra unethical fees asked, good value for the money)	78	2.23%
No answer	78	2.23%
Post-birth care should be personalized and better	69	1.97%
Shortages of staff and materials should cease	67	1.91%
Organization of care provision should be wise	66	1.89%
Support of natural birth/ info/ training provided (no words, actions)	60	1.71%
Emotional support/understanding should be offered	59	1.69%
Caring staff should be courteous and polite	58	1.66%
Up-to-date equipped birth setting necessary	55	1.57%
Promises of service should be kept	54	1.54%
Informational support should be offered by willing caring staff	53	1.51%
Comfortable, quiet, friendly, loving environment everywhere	52	1.48%
Caring staff should explain medical situations thoroughly	51	1.46%
Pain relief (alternative) policies should be offered	45	1.28%
Father/ close person should be present	45	1.28%
All care should be for the best interests of the mother and baby	40	1.14%
I should have a different personal behavior	40	1.14%
All care should be Person-Centred Care	37	1.05%
Caring staff should respond quickly	31	0.88%
Privacy should be protected	31	0.88%
Movement at birthing time should be allowed	30	0.85%
Sense of security should be inspired by all acts	27	0.77%
The carers should be willing to respond	26	0.74%
Carers should experience sincere interest	24	0.68%
Birthing mothers & babies should have personalized attention (continuity of care)	23	0.65%
I would Change birth place	21	0.60%
Other	20	0.57%
The temperature should be regulated	14	0.40%
Short stay policy	13	0.37%

Belated cord cut	9	0.25%
Birth body preparation acts should change (no haste, gentleness, privacy, with dignity)	9	0.25%
Vague	7	0.20%
Respect of individual needs (attitudinal change of carers)	5	0.14%
Carers should trust the mother	5	0.14%
Food & water should be allowed during birth	1	0.02%
Soft light please	1	0.02%
	3491	100%

Looking at the above table 4, we can see that 10.28% of the respondents were very satisfied with the birthing experience they had. They would not change anything. If we exclude this percentage, the first 10 categories of changes suggested are the 52.33% of the total.

D1a. Breastfeeding should be supported/ no boycott/ formulas	715	20.48%
G2. All is good, do not change anything	359	10.28%
A2a. Room-in MB contact/bonding should be supported	271	7.76%
D1. The carers (OBG, pediatricians, midwives, nurses, anesthesiologists, neonatologists) should be knowledgeable, ethical and experienced	127	3.63%
B1b. Avoid invasive interventions	118	3.38%
E5b. Visiting policy should be well thought-of	117	3.35%
D3. Mum/baby should be treated with respect & dignity	108	3.09%
D1b. Newborn care support & training should be better	105	3%
E4. Rooms should be clean, quiet, comfortable (no noise in the corridors, good beds, clean linen, hygiene…)	94	2.69%
E5d. Appropriate food (menus to support breastfeeding/ vegetarians)	93	2.66%
E2. Clean environment everywhere	80	2.29%
		52.33%

Support and guidance as to breastfeeding is the change the respondents prioritize. Unfortunately, the respondents speak about

1. The caring staff which includes Midwives, Obstetricians and Pediatricians to have low knowledge of breastfeeding which results in confusion and challenges for the mothers.
    a. "Midwives and nursing staff should know about breastfeeding" (ID 41702.861712962964, Drama)
    b. The midwives should all share the same breastfeeding global guidelines" (ID 41702.929513888892, Athens)
    c. "Some nurses and midwives did not help me at all with breastfeeding. They disoriented me" (41702.271365740744, Athens)
    d. "I would not listen to the wrong breastfeeding advice midwives gave me" (ID41703.143530092595, Thessaloniki)
2. Apart from the above, the caring staff mentioned above speak ironically about the wish of the mother to breastfeed her baby, not encouraging her.
    a. "Their looks when you tell them that you wish to breastfeed only" (ID 41705.316087962965, Thessaloniki)
    b. "The pediatrician in the clinic should not be that ironic to breastfeeding" (ID 41701.890196759261, Chania, Creta)

3. The worse of all mentioned is that they disrespect mothers' wish to breastfeed and give formula to the newborn or promote formula or prescribe formula for the baby. An emerging reality is the role of the pediatricians who have been repeatedly described as not supportive, intimidating and unethical.
   Extracts from the answers:
   a. "their insistence on formula drives me nuts" (ID 41717.540219907409, Athens)
   b. "I would like the pediatricians not to stress me and urge me to get formula for my baby with no reason at all " (ID 41717.895821759259, Athens),
   c. "I was threatened by the pediatricians that if the baby did not gain any weight –due to my insistence to breastfeed- they would not sign my exit documents", (ID 41717.858032407406, Volos)
   d. "no help at all with breastfeeding", (ID 42029.441631944443, Athens)
   e. "Breastfeeding support. How is it possible for the pediatrician of the clinic to promote formula"(ID 41717.51226851852, Thessaloniki)
   f. Midwives are ignorant of breastfeeding" (ID 41703.524189814816, Chania, Creta)
   g. "If you are not aware that you wish to breastfeed, they do not open your eyes there. On the contrary, you will leave the place with a printed prescription for formula" (ID 41704.431377314817, Pirgos)
   h. "The midwives should learn what breastfeeding is really about and not recommend formula (some of them) (ID 41702.860752314817, Thessaloniki)
4. Finally, the fact that room-in and support for mother/baby contact and bonding is what they need but do not have makes breastfeeding more challenging as there are long intervals between the times babies are brought to mums. With formula meals given in the between.
   a. "The miserable breastfeeding policy. I asked for a breast pump, they did not allow me to breastfeed in the room after birth, I saw the baby 24 hours later and they did not allow me to breastfeed " (ID 41703.567233796297, Athens)
   b. "Although I asked for the baby to breastfeed, they brought me the baby four hours later", (ID41719.302210648151, Thessaloniki)
   c. "Not to keep the newborns in intensive care just in case there is something wrong when there is nothing wrong. It deeply traumatizes both the baby and the mother" (ID41723.885208333333, Athens) .

The 2nd most significant change suggested is related to the facilitation of the mother-baby contact, bonding process. Thus, room-in is what the respondents ask for without having to spend extra money for single room accommodation during the birth and a call to the carers to do their best to bring the baby to the mother immediately after birth and let them stay with the mum.

   a. "I would not like to be apart from my baby, I saw my baby after 8 hours and there was no reason for that (ID 41702.796932870369, Thessaloniki)
   b. "I would like to hold the baby the moment my baby was born, without being washed and not have my arms tied because of C-section" (ID 41718.466064814813, Attica)
   c. "They did not give me the baby when (s)he was born by C-section. They just vanished him/her" (ID 41706.980092592596, Nafplio)
   d. "Always have the baby with me, without necessarily being in a private room", (ID 41722.954247685186, Thermaikos)

A percentage (3.67%) of the respondents seem to have doubts about the ethical and professional integrity of all carers in the birthing centers. Example answers include:

e. "I would change all doctors who are corrupted and they care only about how big your wallet is and what you can give them, which I did not have to give", (ID 41717.887083333335 Athens)
f. "The money under the table that doctors ask and get" (ID 42029.59746527778, Athens)
g. "The midwives should have at least the elementary midwifery knowledge" (ID41702.936666666668, Argostoli, Kefalonia).
h. "ignorant pediatricians, inexperienced nurses" (ID 41704.897268518522, Siteia, Creta)

This low trust in the skills and ethics of the caring staff is to be evaluated accordingly by the decision makers. And it may be linked with the next issue, the respondents bring to attention, that is the unnecessary medical interventions, the disrespect of the birthing mother and baby and the undignified treatment.

a. "not to impose c-section on me" (ID 41702.936666666668, Argostoli)
b. "less medical intervention at birth" (ID 41702.956828703704, Athens)
c. "The doctor should not break the waters", (ID 41717.646840, Thessaloniki)
d. "I might change birthing place to avoid c-section", (ID41703.506574074076, Drama)
e. "doctors make so many meaningless interventions in there that they do not allow women to relax" (ID41704.857199074075, Siteia, Creta)
f. "I would rather give birth without any interventions. My doctor induced me without letting me know" (ID 41704.804791666669, Kalamata)
g. "I would have requested to wait longer for the birth, not at 38w by c-section" (ID 41703.69122685185, Mykonos)
h. "This mania of theirs to keep you on the hospital bed on the drip and CTG with no reason at all " (ID 41702.919074074074, Thessaloniki) .
i. "Treat the person with more sensitivity and not as a vehicle in a car repair place", (ID 41703.270486111112, Athens)
j. "Avoid the unnecessary c-section" (ID 41702.78570601852, Thessaloniki)
k. "Midwives exerted so much pressure on my tummy that I can still remember the pain" (ID 41705.308634259258, Thessaloniki)

Bad management issues were also brought to attention, among which

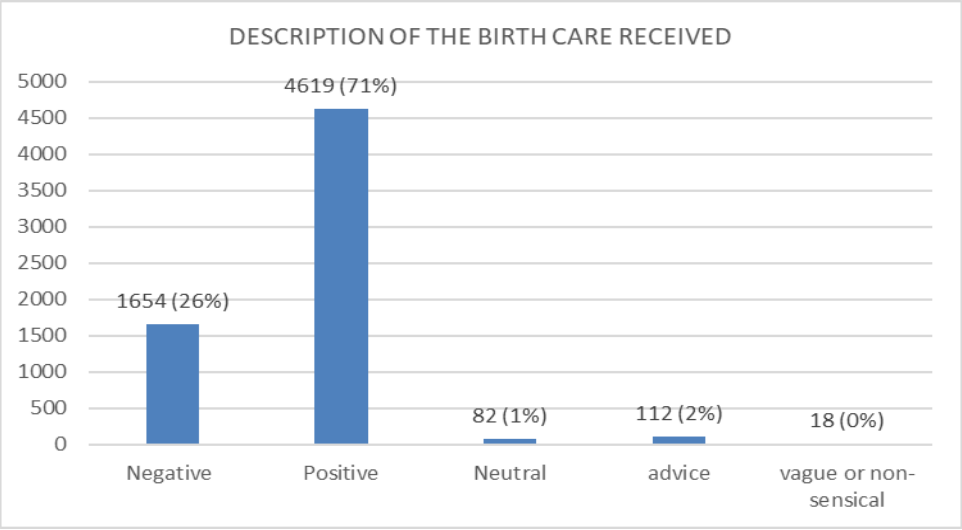
- visiting hours being too long with too many visitors in the rooms or at the same time that the meal was being served,
    - "Visiting hours. They allowed so many people to get to the room", (ID 41717.424085648148, Athens)
    - "Bad management of the visiting hours: no respect to the visiting hours, too many people, it was at the same time as the meals" (ID 41717.482442129629, Athens)
- there were complaints about the menus which were not supportive of breastfeeding or did not provide for vegetarian mums or were not tasty or enough in quantity,
    - "more compatible to breastfeeding menus" (ID 41702.951273148145, Athens)
- uncomfortable beds,

- "the beds were uncomfortably high" (41703.305474537039, Rethimno, Creta)
- banging doors, noise in the corridors made by staff, especially at night,
  - "The cleaners banged doors" (ID 41718.540682870371, Veroia)
  - "Noise in the corridors" (ID 41703.018043981479, Chania, Creta)
  - "More respect to the need of the mother for peace and quiet so that there were no often interruptions from the part of the staff and product promoters", (ID 41704.429826388892, Athens)
- cleanliness/ hygiene issues (example: long fingernails touching the breast, hands smelling of tobacco)

An Honest Description

Question 16 of the survey asked participants to give an honest description of the care received at the birth setting where they had their last baby using up to six words or phrases. If all participants provided a description, there should be a total of 12,534 answers. However, only 6485 answers or 51.73% were given. This means that each participant offered 3.10 answers. The given answers were put together and, as seen in chart 57, a small number (n=18) was non-sensical or too vague to understand and another percentage (n=112 or 2%) was in the form of advice offered because of the experience. This last thing makes it rather risky to categorize, thus we avoided doing so. No answers or blank answers were not calculated. Of the remaining answers, the vast majority (71%) used positive words to describe their experience and the 26% expressed negative words.

Chart 57: Description of the birth care received



The effort to analyze the quality of words used was not very easy as one word could also be found in an indirect way in another phrase. However, an approximation of the frequency of the words used is shown in the following table 5 for the positive words and table 6 for the negative ones.

Table 5: Approximate frequency of positive words used to describe the birth care received

Descriptive word	frequency
clean	474
breastfeeding	328
care	187

good	172
friendly	129
kindness	118
food	118
wartmth	118
support	103
prompt	100
service	72
updated	67
beautiful	59
comfortable	54
help	52
calm	51
excellence	48
experienced	48
respect	47
interest	46
Room-in	46
correct/ right	37
quiet	35
economical	34
psychological	34
impeccable	33
humane	33
response	31
exquisite	30
understanding	29
safety	25
trust	23
wonderful	21
whole	20
perfect	20
love	20
physiological	17
patience	14
smile	13
responsible	13
organized	12
reliability	10
co-operation	10
encouragement/ empowerment	10
consistency	9
natural	4
	2974

A selection of positive description of the birth care received follows:

1. “Kind people who smile to you and empower you” (ID 41718.345613425925, Athens)
2. “The baby is always with the mother”, (ID 41703.55976851852, Komotini)
3. “Almost maternal care by my midwife”, (ID 41717.491087962961, Athens)
4. “Experience and guidance” (ID 41717.557118055556, Patra)
5. “There was always someone there for me”, (ID 41703.928796296299, Kastoria)
6. “co-sleeping” (ID 41717.738935185182, Argos)
7. “Service, care, cleanliness, love, sociable” (ID 41706.521134259259, Corfu)
8. “good food, very good doctors/ midwives, very good facilities”, (ID 41702.8278587963, Xilokastro)
9. “Mother/ Baby-friendly, responsible, organized, clean, breastfeeding-friendly”, (ID 41703.266539351855, Aridaia)
10. “quiet, support, trust in my personal powers, no rush, postpartum support” (ID 41703.667777777778, homebirth Thessaloniki)

Table 6: Approximate frequency of negative words used to describe the birth care received

not	182
don't	152
shortage	133
expensive	70
no	56
formula	51
indifferent	47
cesarean	44
none	33
ignorance	29
unacceptable	27
bad	27
mistakes/ wrong	27
cold	20
rude	18
inadequate	16
intervention	12
dirty	6
total	950

Examples of negative descriptions given:

1. “Body and soul rape”, “The obstetrician betrayed me”, “the midwives were cold”, (ID 41707.065787037034, Athens)
2. “Butcher’s surgery” (ID 41717.903877314813, Pallini)
3. “commercialization of your joy”, (ID 41702.991180555553, Thessaloniki)
4. “They terrorize you to get what they want”, (ID 41705.69158564815, Thessaloniki)
5. “Cesarean factory” (ID 41717.871979166666, Thessaloniki)
6. “ Incubator for hens” (ID 41708.655868055554, Athens)

7. “For many hours I was left alone as I was not the client of any obstetrician there”, (ID 41703.456979166665, Thessaloniki)
8. “There was no respect at all. Whoever wished got in and examined me”, (ID 41703.456979166665, Thessaloniki)
9. “They secretly give formula to the baby” (ID 42029.326215277775, Athens)
10. “irony from midwives”, (ID 41710.367986111109, Drama)

Comments

929 respondents out of 2089 (44.47%) left a comment as asked. The majority of the comments repeated what has already been clear in other questions of the survey, not changing the information already given. However, there were some comments worth mentioning:

1. “It's time to let our babies decide their date of birth without listening to doctors who program births just because they can't mess up their daily program” Thessaloniki
2. “My experience of home birth was gorgeous! I was 100% sure about my decision to do it. After 9 months, there came up some uncertainties about what would have happened if... But, I am really satisfied with my experience and hope to be able to do it again!” Thessaloniki
3. “The hospital staff failed me at every step. They did not take my feelings into account, they failed to inform me about the problems with my baby's birth, they took the baby away without telling me what was going on. I was ignored, on wet, cold sheets for 2 hours, without knowing where the baby was. They did not allow my partner to attend the birth. They did not at any stage consider my thoughts or feelings. I was made to give birth to a breech baby vaginally, without being informed that this was the case, and was never given the option of a caesarian section. Post-partum, the hospital staff did not wish me to breastfeed my baby or even express milk for him. They were unprofessional in the extreme, and completely inconsiderate towards me.” Alexandroupoli
4. “Let Nature do its job. It knows better” (ID 41702.901192129626, Serres)
5. “ I wish all midwives could see birth in a more humane way and not treat babies like objects but as little miracles” (ID 41729.722939814812, Larissa)
6. “Doctors and midwives should all be re-educated to benefit the birthing mother. They should not be stuck to prehistoric methods and attitudes. They should be retrained to natural birth” (ID 41703.2809375, Herakleio, Creta)
7. “Midwives should love their jobs and not get percentage on sales from companies” (ID 41704.453067129631, Ioannina)
8. “I dream of a maternity care that favors natural birth, breastfeeding and be mother/ baby-friendly” (ID 41704.798321759263, Athens)
9. “Please, let’s stop this terrorism that leads birthing mothers to cesarean and consequently leads to babies being taken to the intensive care units away from their mothers” (ID 41717.427337962959, Athens)
10. “There are two kinds of midwives: those who learned a few things and they learn no more (they do , they shave, they do not allow you to eat anything for endless hours, they give sugar water to the newborn or glucose, they give wrong information about breastfeeding (every 3 hours and only 10 minutes), they blindly obey …” (ID 41703.333067129628, Athens)

Finally, 1040 out of 2089 (49.78%) respondents said that they could be contacted for further research in the future.

Discussion

Babies Born Better (BBB) survey meant to understand how birthing mothers experienced the care they received in the birthing setting where they gave birth to their youngest child. This paper presents the analysis of the data collected from mothers who gave birth in Greece. It presents the experiences considered positive as well as the changes these mothers suggest. Reflecting on the answers collected, it is very interesting to see that what women valued most in the care received was the sense of feeling secure (assurance) followed very close by the appreciation of tangibles.

Does this mean that birthing mothers have a lot of stress associated with birthing and this stress is associated with the fear of death as it appears in the form of fear of childbirth, tokophobia[12] ? It seems that this fear of childbirth and behind it the fear of death is associated with high levels of anxiety, low self-esteem and a series of traumatic events traced back in the early, primal experiences of the women. In 1797, Dr Osiander from Germany wrote about the "suicidal ideation of women" resulting from the intense fear of childbirth and Dr. Louis Victor Marcé, the French psychiatrist, described the fear of childbirth in 1858 (32). He wrote that "If they (women) are primiparous, *the expectation of unknown pain* preoccupies them beyond all measure and throws them into a state of inexpressible anxiety. If they are already mothers, they are terrified of the memory of the past and the prospect of the future." However, it was in 2000 that the term tokophobia was introduced in literature and research attention started to cast light on the phenomenon (33). Since then, some efforts have been made to understand and then support these cases which seem to rise to a scaring percentage of 80% of the entire population (34) during pregnancy and even before conception scaled down to 10% of the birthing mothers, according to the statistics so far (35). According to Nieminen (36) fear of childbirth in pregnant women has been associated with a previous negative birth experience (a) or anamnestic experience, an increased risk of operative interventions during the delivery (b), and with depression as well as anxiety syndromes (c). Unfortunately, this work surfaces the existing issue although indirectly, reading between the lines the relief and/or satisfaction expressed by women when they find themselves surrounded by knowledgeable and experienced caring staff in birth settings (the greatest majority maternity hospitals) fully equipped with the latest technology. There is such a small percentage (around 1%) that trusts homebirth options.

This fear-based background is closely linked with the power issues (37, 38) as they emerge from the research. The question of who controls the pregnancy and the birth procedure seems to be far from being the birthing mother and the baby to be born. The birthing experiences described in this research show that childbirth is highly medicalized in Greece. The decisions of the time of birth are made by others (mainly doctors) who induce too early and without the consent of the mother or break the waters or exert psychological pressure on the birthing mother manipulating fear and proceed with c-section. The position of birthing is dictated by the caring staff who immobilize mothers on the bed with strapped arms (as in c-section) disabling them from moving and stealing from the experience of both the birthing mother and the generations that are being born. It is also the caring staff that decides who is going to receive the baby and most of the times it is not the mother who receives the baby at birth but one of the staff. What is worse is that despite the existing evidence of how important this first perinatal bonding is for the wellbeing of the newborn, the caring staff fails to facilitate this bonding between mother and baby and father and baby or the family as a whole. Administration aspects need to be revised so that the policies

[12] Tokophobia: fear before, during, or after the delivery (from the Greek word τόκος (labour) and φόβος (fear)

provide for the best interests of the whole family system, father/partner and already born children included and the society as a whole. Furthermore, the research shows that it is the caring staff that controls the behavior during the actual birth and whether the baby will be breastfed and how. These power games in the childbirth scene need to be further researched as to fully understand the motivation and the origins of such "caring" attitudes and/or behaviors.

In the Western way of thinking, a lot of value is placed on knowledge and cognition. And it is true that the more we discover about the existing life dynamics the more we can provide for a higher quality of life. There is a significant factor though that allows this positive benefit to triumph and this is the philosophies, principles and values behind the knowledge gained. Information is so open today and available to all who wish to get it. But what do we do with this? How do we interpret it and whether we use knowledge with wisdom and ethics is what is needed above all. This research has shown that we lack in all these fields as caring staff in birthing settings. The information is not updated, the knowledge is not adequate, the ethics is not the menu of the day. The participating mothers ask for more update knowledge about three very basic fields (a) natural birth, (b) breastfeeding (c) childcare. It is amazing that at a time we know more we act less. They also ask for professionally ethical treatment according to the Hippocratic Oath and law of "do no harm" away from serving company interests and pharmaceuticals for money gain and they ask for humane service to be offered by all involved, cleaning staff included. It is high time, we re-organize academic education and professional training so that it takes into account the needed support of the caring staff so that they can be gentle carers of the people.

It is very surprising as well to see that despite the many efforts made by the WHO worldwide to raise awareness about breastfeeding and its benefits for the newborn and despite the extensive seminars offered to midwives on breastfeeding, the emergence of the new profession of breastfeeding consultant and the extensive evidence now available to all, mothers complain about the lack of knowledge on breastfeeding, the conflicting information and guidance given, the resistance of the caring staff and the lack of support, let alone the boycott efforts against breastfeeding. There is a missing brick here. Is there anything wrong with the training dynamics? Do we need to re-visit how these certifications that confirm the existence of skills (which seem they do not) are given? Do we need to re-examine the evaluation procedures? Is it enough guarantee to be present and attend a number of lectures or do we need to integrate other aspects so that we can support the new attendees to change attitudes and introduce innovative behaviors that benefit the whole human society?

Which brings up the next, equally important theme emerging: the relational and attitudinal aspects within childbirth. Of course, it is linked to the above mentioned issues raised in this discussion. And it is worth mentioning that we need to move to a deeper, more essential understanding of what life is, what happens at birth, the impact of even our thoughts on the environment and how we shape the health and the wellbeing of others with our words, attitudes and choices. Mothers shout that they are not patients, they are not animals. Far from being downgraded to the animal kingdom and treated as hens, sheep and cattle at slaughter (all showing also disrespect to the animal entities sharing our planet), mothers are human being facilitating and participating in a life miracle. It is high time we reflected on the quality of the words we use, what these words speak about our personal or societal beliefs and how we empower the perpetuation of such cultures or not. It is high time to revise not only academic and training syllabuses but also terminology, concepts and styles of co-existing and co-creating. And it is high time to turn our attention to other professions who are very present at the birthing scene. Pediatricians, anesthesiologists, neonatologists to mention some of them. Unfortunately, the respondents express so many challenges with

all the above professions. It is high time, the professional entities to focus on it and provide for the attitudinal and relational aspects of their members along with the update professional expertise so that it can hold these aspects as well. Birth should not be the battle field of midwives and obstetricians, or caring staff and mothers. It should be the opportunity for peaceful co-operation of all to the greatest benefit of the whole humanity.

We also need to consider the responsibility we all bear for the new generations being born and witnessing all these. We know very well that whatever stress the maternal environment experiences goes directly to the baby affecting his/her primal health. That's why efforts should be made to support the maternal environment from what first or secondary degree tokophobia or other mental conditions which could have adverse effects on the (un)born, newborn and young infant (38-41). Apart from maternal anxiety, and/or depression or other medical mental conditions that ask for therapy, it is equally important to support the emotional health of the pregnant and birthing mothers and restore the lost smile, heal betrayals, re-establish the lost trust in self and others, heal powerlessness, helplessness and hopelessness in them as they directly affect the lifelong decisions made by the babies (1, 42-45) . I quote from one of the respondents who describes her experience as "a prison for 4 days! I paid for a superior room to feel like I was in a prison with unfriendly faces. Next time I will give birth home. They didn't allow my older child to see her sisters for the period I was in the clinic. Children are forbidden in Greek labour hospitals and this is unbelievable! I also couldn't stay for many hours with my older child; because in this case, I had to deliver my babies to the nurses! I should choose between my babies and my older child! what a shame! ». What are the underlying emotions handed down? To what extent are we also responsible for the hell lived or the hell handed down? Could we do any better than that?

Last but not least, it is important to notice that birth settings place an emphasis on the tangibles, the material aspects of the birth. Hospitals are described as 5-star hotel, comforts, luxury, meals seem to be highly appreciated. It reflects, perhaps, the emphasis placed on the material life aspects as a cultural priority in Europe in comparison to relational aspects such as empathy. It may also reflect a narcissistic way of experiencing life as together with assurance (fear-based) and tangibles (materialistic), even reliability and responsiveness are also focused on "me" the birthing mother and empathy especially empathy to the baby being born seems to be very far behind as a priority. Even in the cases when respondents spoke about mainly room-in and breastfeeding and this involves babies, the quality of language used conveys the message of how good this facilitation is for the mother and very few answers bring the attention how beneficial it is for the baby. Further investigation needs to be made to clarify such issues.

It is also necessary to design services which will allow the maternal environment in its general sense to embrace the many levels of bonding (44, chapter 3) and design curricula for the pregnant couples, young couples thinking of opening to the parenthood, adolescents, schoolchildren and the elderly so that they can break the existing limitation of appreciating only what our 5 senses can perceive and rediscover the complexity of the beauty among humans sharing this planet with all. We need more inspirational "interventions", more courses on gentleness, mutuality, humane issues, "humanness" than we can ever imagine, we need more artists and storytellers to be involved in the field together with philosophers, psychologists and scholars.

Limitations of the current study

First, the study used a sample of women who gave birth in Greece in the five years before the BBB survey was launched. Certainly, the sample covers almost all administrative areas of the country and the online sampling enabled the participation of a heterogeneous number of mothers. But since the survey was administered by machines, there were

challenges as to the completion of answers (words were unfinished due to limitations to words allowed). The use of interviews would make it possible to clarify meanings as many times the brevity of answers provided made space for a lot of different interpretations.

Further research is needed to determine patterns, examine motives, explore the prenatal/perinatal aspects (re)triggered and/ or at play behind the adopted attitudes and behaviors of the caring staff and the birthing mothers, explore the fantasies, personal myths, the untold primal stories, the unhealed traumata ghosting childbirth and evaluate how birth/ baby-friendly birth settings and protocols really are.

However, the strength of this study is that it has collected material right from the mouths/ hearts/ hands of the mothers and it can be a most useful work that can lead to the development of an instrument that could provide reliable, first hand understanding to improve, enhance, introduce and/or develop strategies to benefit all involved.

Conclusions

Childbirth is a multidimensional, multi-cultural human experience that connects the three dimensions of time: it echoes the past as it is handed down from generations and generations of human beings being born, it reflects the present values and philosophies and shapes the future of the Humanity. What we have learnt from this work is mainly that there is a long way to go if we wish to welcome healthier and wiser generations in the demanding present and future. Can we do that? Certainly, we can! Together we can move to a trust-based childbirth experience.

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REFERENCES

(1) Gouni O, Turner Jon RG, Turner Troya GN (editors), 2018, Prenatal Psychology: 100 Years, Book, ISBN-13: 978-198432382, ISBN-10: 1984323822, cosmoanelixis, Athens

(2) Rowlands, I.J., Redshaw, M. Mode of birth and women's psychological and physical wellbeing in the postnatal period. *BMC Pregnancy Childbirth* 12, 138 (2012). https://doi.org/10.1186/1471-2393-12-138

(3) Gibbins J., Thomson A. M. (2001). Women's expectations and experiences of childbirth. Midwifery, 17(4), 302–313

(4) Hardin A. M., Buckner E. B. (2004). Characteristics of a positive experience for women who have unmedicated childbirth. The Journal of Perinatal Education, 13(4), 10–16 10.1624/105812404X6180

(5) World Health Organization (2005). World health report 2005: Make every mother and child count. Geneva, Switzerland: Author

(6) World Health organization. WHo recommendations: intrapartum care for a positive childbirth experience. Geneva: World Health organization; 2018 [internet]. available from: http://apps.who.int/iris/bitstream/hand le/10665/260178/9789241550215-eng.pdf?sequence=1 [cited 2018, oct 8].
(7) World Health organization. The prevention and elimination of disrespect and abuse during facility-based childbirth. Geneva: World Health organization; 2014 [internet]. available from: http://apps.who.int/iris/bitstream/handle/10665/134588/WHo_rHr_14.23_eng.pdf?sequence=1 [cited 2018, oct 8]
(8) B3 project collaboration [Internet]. University of Central Lancashire, Hannover Medical School & COST: European Cooperation in Science and Technology. Available from: http://www.babiesbornbetter.org.
(9) Sapountzi-Krepia D, et al 2006, Maternity Care in Greece, NOSILEFTIKI 2006, 45(2):160–168
(10) Dragonas TG. Greek fathers' participation in labour and care of the infant. Scand J Caring Sci 1992, 6:151–159 71.
(11) Likeridou K, hyrkäs K, Paunonen M, Lehti K. Family dynamics of child-bearing families in Athens, Greece: A pilot study. Int J Nurs Pract 2001, 7:30–37
(12) Sapountzi-Krepia D., et al, 2008, Greek mothers' perceptions of their cooperation with the obstetrician and the midwife in the delivery room, International Journal of Caring Sciences, 1(3):124–131
(13) Number of Obstetricians and gynecologists employed in Greece 2000-2017 , published by Conor Stewart, Jul 18, 2019, retrieved from Statista, https://statista.com on 1 May 2020
(14) Greece - Nurses and midwives - actual values, historical data, forecasts and projections were sourced from the World Bank on May of 2020. Accessed on 11 May 2020 https://tradingeconomics.com/
(15) United Nations - World Population Prospects, https://www.un.org/ https://www.macrotrends.net/countries/GRC/greece/fertility-rate'>Greece Fertility Rate 1950-2020 (www.macrotrends.net). Retrieved 2020-05-11.
(16) Chaniotakis Ioannis, Lymperopoulos Constantine, 2009, Service quality effect on satisfaction and word of mouth in the health care industry, Article in Journal of Service Theory and Practice · March 2009
(17) Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality", Journal of Retailing, Vol. 64 No. 1, pp. 14-40.
(18) Youssef, F.N., Nel, D. and Bovaird, T. (1996), "Health care quality in NHS hospitals", International Journal of Health Care Quality Assurance, Vol. 9 No. 1, pp. 15-28.
(19)Fuentes, C.M. (1999), "Measuring hospital service quality: a methodological study", Managing Service Quality, Vol. 9 No. 4, pp. 230-9.
(20) Tsetsila Evgenia et al, 2010, New mothers' perceptions regarding maternity care services provided in a prefecture of Northern Greece International Journal of Caring Sciences 2010 September-December Vol 3 Issue 3
(21) Mossialos E, Allin S, Karras K, Davaki K (2005). An investigation of Caesarean sections in three Greek hospitals: the impact of financial incentives and convenience. European Journal of Public Health, 15:288–295

(22) Sapountzi-Krepia D et al, 2011, Mothers' experiences of pregnancy, labour and childbirth: A qualitative study in Northern Greeceijn_1975 583, International Journal of Nursing Practice 2011; 17: 583–590
(23) Iliadou Maria, 2012, Supporting women in labour, HEALTH SCIENCE JOURNAL, Volume 6, Issue 3 (July – September 2012)
(24) SACHSANIDIS, P.. Evaluating Women's Satisfaction With Health Services Received During Childbirth: A Study of Hospitals in Athens, Greece. Journal of Clinical Gynecology and Obstetrics, North America, 7, mar. 2018. <<https://www.jcgo.org/index.php/jcgo/article/view/475/318>. Date accessed: 11 May. 2020.
(25) Panagopoulou Vassiliki, Athina Kalokairinou, Foteini Tzavella and Styliani Tziaferi, 2018, A survey of Greek women's satisfaction of postnatal care, AIMS Public Health, 5(2): 158–172.
(26) Kitson, A., Marshall, A., Bassett, K., & Zeitz, K. (2013). What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing. Journal of Advanced Nursing, 69(1), 4-15. doi:10.1111/j.1365-2648.2012.06064.x
(27) Maxwell, J. A., & Mittapalli, K. (2010). Realism as a stance for mixed methods research. In A. Tashakkori, & C. Teddlie (Eds.), SAGE handbook of mixed methods in social and behavioral research (2nd ed., pp. 145-167) London, UK: SAGE.
(28) Downe, S. (2010). Beyond evidence-based medicine: Complexity and stories of maternity care. Journal of Evaluation in Clinical Practice, 16(1), 232-237. doi:10.1111/j.13652753.2009.01357.x
(29) Nieuwenhuijze, M., Downe, S., Gottfreðsdóttir, H., Rijnders, M., du Preez, A., & Vaz Rebelo, P. (2015). Taxonomy for complexity theory in the context of maternity care. Midwifery. Advance online publication. doi:10.1016/j.midw.2015.05.009
(30) Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. Health Promotion International, 11(1), 11-18. doi:10.1093/heapro/11.1.11
(31) Furber, C. (2010). Framework analysis: A method for analysing qualitative data. African Journal of Midwifery & Women's Health, 4(2), 97-100.
(32) Marcé L.V. (1858). Traité de la folie des femmes enceintes, des nouvelles accouchées et des nourrices. Paris: Baillière
(33) Hofberg, K., Brockington, I.F. (2000). Tokophobia: an unreasoning dread of childbirth. A series of 26 cases. The British Journal of Psychiatry, 176, 83- 85.DOI: 10.1192/bjp.176.1.83
(34) Toohill, J., Fenwick, J., Gamble, J., Creedy, D.K., Buist, A. and Ryding, E.L. (2014) Psycho-Social Pre-dictors of Childbirth Fear in Pregnant Women: An Australian Study. Open Journal of Obstetrics and Gynecology, 4, 531-543. http://dx.doi.org/10.4236/ojog.2014.49075
(35) Melender HL. Experiences of fears associated with pregnancy and childbirth: A study of 329 pregnant women. Birth. 2002; 29(2): 101-111.
(36) Nieminen K, Stephansson O, Ryding EL. 2009, Women's fear of childbirth and preference for cesarean section--a cross-sectional study at various stages of pregnancy in Sweden. Acta Obstet Gynecol Scand 2009;88:807-813.
(37) Haines H, Pallant JF, Karlstrom A, Hildingsson I. 2010,Cross-cultural comparison of levels of childbirth-related fear in an Australian and Swedish sample. Midwifery 2011;27:560-567.
(38) Selin H.(Ed), 2009, Childbirth Across Cultures, Springer, ISBN 978-90-481-2599-9

(39) Rouhe, Hanna. (2015). Fear of childbirth. 10.13140/RG.2.1.3037.2967.
(40) Saisto T, Halmesmaki E., 2007, Fear of childbirth can be treated,and cesarean section on maternal request avoided. Acta Obstet Gynecol Scand. 2007;/86:/1148-9
(41)Striebich et al, 2018, Support for pregnant women identified with fear of childbirth (FOC)/ tokophobia – A systematic review of approaches and interventions, Midwifery 61 (2018) 97–115
(42) Gouni Olga, Slobodan Sekulic, & Anastasia Topalidou. (2016). The Contribution of Prenatal Psychology to Our Understanding about Prenatal Dynamics and Fetal Behaviour. Psychology Research, 6(12), 693-711.
(43) Gouni, 2008, Prenatal Cont®acts for a Lifetime:Presentation at the Parma congress, 2008
(44) Turner RG, Turner T, & Gouni O (Ed), 2020, Whole-Self Approaches in Prebirth Psychology and Medicine, ISBN 9798642504598, cosmoanelixis, Athens, Greece
(45) Goetz E., Djordjevic D (ed), 2020, Pre-and postnatal psychology and medicine, Nova science publishers, ISBN 978-1-53616-783-2

Other BBB papers published

Luegmair K, Zenzmaier C, Oblasser C, König-Bachmann M. Women's satisfaction with care at the birthplace in Austria: Evaluation of the Babies Born Better survey national dataset. Midwifery. 2018;59:130-140. doi:10.1016/j.midw.2018.01.003

Raboteg-Saric, Z. et al, 2017, Optimizing childbirth in Croatia –mothers' perceptions of the best experience and their suggestions for change, Central European Journal of Paediatrics 13, 117-129

Skoko E, Ravaldi C, Vannacci A, et al. Findings from the Italian Babies Born Better Survey. Minerva Ginecol. 2018;70(6):663-675. doi:10.23736/S0026-4784.18.04296-X

Weckend, M.J., 2015, Women's experiences of maternity care in Germany and Austria: The Babies Born Better User Survey, Thesis, University of Central Lancashire, Preston, UK

APPENDIX 1

B3 User Survey Instrument in English (original)

Introduction and consent

Have you had a baby in the last five years? We would really like to hear from you!

In this survey, we are trying to find out about women's views and experiences relating to maternity care in a number of different European countries. This information will be used by our research group (COST Action IS0907) to identify areas of best practice in maternity care across Europe.

There are a maximum of 20 questions and these should take less than 10 minutes to answer. You may not need to answer all of these questions and your responses will remain anonymous. You will be free to withdraw consent at any time by simply closing the browser window. However, as data is collected anonymously, it will not be possible to withdraw consent once your responses have been submitted on the final page.

We will share the results of this survey as widely as possible. We will begin posting the results online from 01/04/2014 and will update these results regularly. Please check back to see what we have found out (www.iresearch4birth.eu).

Every answer is important – thank you for taking the time to complete this survey!

If you have any questions about this survey then please do not hesitate to contact us directly (contact@iresearch4birth.eu)

Demographic variables

1. What is your age (in years)? [free text]

2. Where do you live?

    Your country: [free text]

    Your nearest town/city: [free text]

3.We would like to know about the quality of maternity care provided to all women, including those who have moved to this country. Can you tell us how long you have lived in this country?

    I was born here
    If you moved here, how long ago (in years)? [free text]

4. If you moved to this country, please tell us why: [free text]

About your children

5. How many children have you given birth to? [dropdown 0 to 16+]

6. Have you given birth within the last 5 years? [dropdown Y/N]

7. What is the date of birth of your youngest child? [dropdown for Month and Year]

About your pregnancy

8. How many weeks pregnant were you when your youngest child was born? [dropdown <24 to 44+]

9. Were there any problems with that pregnancy? [dropdown Y/N]

10. Please tell us what those problems were: [free text]

About the birth of your youngest child

11. Where did you have your last baby?

In a hospital labour ward

In a birth centre that is part of a larger labour ward, or on the same site as a larger labour ward

In a birth centre that is not on the same site as a larger labour ward

At your home

Other (please explain): [free text]

12. What group of staff provided most of your care?

Doctors

Midwives

Nurses

A mixture of doctors and midwives or nurses

Other (please explain): [free text]

13. Please write down the name, town, and/or postcode for the place where you had your last baby (if this was your home, please don't write down anything that can identify your address)

Name: [free text]

Town: [free text]

Postcode: [free text]

14. What were the three best things about the care you got there? Please put the very best thing at the top of the list.

First: [free text]

Second: [free text]

Third: [free text]

15. If you had the power to make three changes in the care you had, what would the changes be? Please put the most important change at the top of the list.

First: [free text]

Second: [free text]

Third: [free text]

Imagine a friend or family member is pregnant

16. Imagine a very close friend or family member is pregnant. They have asked you to give them a really honest description of the care you got at the place where you had your last baby. You can only use up to six words or phrases. What would those words or phrases be?

1: [free text]

2: [free text]

3: [free text]

4: [free text]

5: [free text]

6: [free text]

Other Comments

17. Please write any comments you want to make here. These could explain your answers in more detail, or add any other information you would like us to know about your experiences with maternity care. [free text]

Contact information

18. If you would like to be informed about the results of this survey then please leave your email address in the space below. Your responses to this survey will remain anonymous even if you provide your contact details. We will not use your email address for any purpose other than to inform you of the survey findings. [free text]

19. We would like to contact a small number of women who have completed this survey as part of a planned, follow-up study. If you are happy for the researchers to contact you via email then please select 'Yes' below. We will not use your email for any other purpose and your responses will still remain anonymous (your email address will be kept separately from your responses to this survey).

Yes/No

APPENDIX 2

Εργαλείο έρευνας Β3 στα Ελληνικά (πρωτότυπο)

Εισαγωγή και συγκατάθεση

Αποκτήσατε μωρό τα τελευταία πέντε χρόνια; Θα θέλαμε πραγματικά να μάθουμε για την εμπειρία σας!

Διεξάγουμε αυτή την έρευνα με στόχο να ανακαλύψουμε τις εμπειρίες τοκετού και γέννας των γυναικών σε διάφορες χώρες στον κόσμο. Οι απαντήσεις σας θα μας βοηθήσουν να συγκρίνουμε το τι σκέφτονται οι γυναίκες σε σχέση με την φροντίδα κατά την διάρκεια της γέννας σε διάφορες χώρες. Ελπίζουμε να χρησιμοποιήσουμε τα αποτελέσματα της έρευνας προκειμένου να ανακαλύψουμε τι νομίζουν οι γυναίκες ότι έχει καλά αποτελέσματα, και να χρησιμοποιήσουμε αυτές τις πληροφορίες για να βελτιώσουμε την παροχή φροντίδας στο μέλλον.

Θα κληθείτε να απαντήσετε σε έως 20 ερωτήσεις και θα σας πάρει λιγότερο από 10 λεπτά από τον χρόνο σας για να απαντήσετε. Δεν χρειάζεται να απαντήσετε σε όλες αυτές τις ερωτήσεις και οι απαντήσεις σας θα είναι ανώνυμες. Μπορείτε να ανακαλέσετε τη συγκατάθεσή σας ανά πάσα στιγμή απλώς κλείνοντας το παράθυρο του προγράμματος περιήγησης. Ωστόσο, καθώς τα δεδομένα συλλέγονται ανώνυμα, δεν θα είναι δυνατό να αποσύρετε τη συγκατάθεσή σας μόλις υποβληθούν οι απαντήσεις σας στην τελική σελίδα.

Θα δημοσιεύσουμε τα αποτελέσματα αυτής της έρευνας όσο το δυνατόν ευρύτερα. Θα αρχίσουμε να δημοσιεύουμε το αποτελέσματα διαδικτυακά από 01/04/2014 και θα ενημερώνουν τακτικά αυτά τα αποτελέσματα. Παρακαλούμε να επισκέπτεστε τακτικά την ιστοσελίδα μας και να βλέπετε τι έχουμε βρει (www.iresearch4birth.eu).

Κάθε απάντηση είναι σημαντική –σας ευχαριστούμε που διαθέσατε το χρόνο σας για να συμπληρώσετε αυτή την έρευνα!

Εάν έχετε οποιεσδήποτε ερωτήσεις σχετικά με αυτήν την έρευνα, παρακαλούμε μην διστάσετε να επικοινωνήσετε μαζί μας απευθείας (contact@iresearch4birth.eu)

Δημογραφικές μεταβλητές

1. Πόσων ετών είστε; (σε έτη); [ελεύθερο κείμενο]

2. Σε ποια χώρα ζείτε;

    Η χώρα σας: [ελεύθερο κείμενο]

    Η πλησιέστερη πόλη / κωμόπολή σας: [ελεύθερο κείμενο]

3. Θα θέλαμε να μάθουμε για την ποιότητα φροντίδας μητρότητας που παρέχεται σε όλες τις γυναίκες, συμπεριλαμβανομένων και όσων δεν έχουν γεννηθεί σ' αυτή τη χώρα και οι οποίες έχουν μετακομίσει εδώ. Μπορείτε να μας πείτε πόσο καιρό έχετε ζήσει σε αυτήν τη χώρα;

    γεννήθηκα εδώ

    Εάν μετακομίσατε εδώ, πόσο καιρό πριν (σε χρόνια); [ελεύθερο κείμενο]

4. Εάν μετακομίσατε σε αυτήν τη χώρα, πείτε μας γιατί: [ελεύθερο κείμενο]

Σχετικά με τα παιδιά σας

5. Πόσα παιδιά γεννήσατε; [αναπτυσσόμενο μενού 0 έως 16+]

6. Έχετε γεννήσει τα τελευταία 5 χρόνια; [αναπτυσσόμενο Y / N]

7. Ποια είναι η ημερομηνία γέννησης του μικρότερου παιδιού σας; [αναπτυσσόμενο μενού για μήνα και έτος]

Σχετικά με την εγκυμοσύνη σας

8. Πόσες εβδομάδες είσθε έγκυος όταν γεννήθηκε το μικρότερο παιδί σας; [αναπτυσσόμενο μενού <24 έως 44+]

9. Υπήρξαν προβλήματα με αυτήν την εγκυμοσύνη; [αναπτυσσόμενο Y / N]

10. Πείτε μας ποια ήταν αυτά τα προβλήματα: [ελεύθερο κείμενο]

Σχετικά με τη γέννηση του μικρότερου παιδιού σας

11. Πού γεννήσατε το τελευταίο σας μωρό;

Σε αίθουσα τοκετού νοσοκομείου

Σε ένα κέντρο γέννησης που είναι μέρος ενός μαιευτηρίου, ή στον ίδιο χώρο του μαιευτηρίου

Σε ένα κέντρο γέννησης που δεν βρίσκεται στον ίδιο χώρο με ένα μαιευτήριο

Στο σπίτι

Άλλο (εξηγήστε): [ελεύθερο κείμενο]

12. Ποια ομάδα προσωπικού παρείχε το μεγαλύτερο μέρος της φροντίδας σας;

Γιατροί

Μαίες

Νοσοκόμες

Ένα μείγμα γιατρών και μαιών ή νοσοκόμων

Άλλο (εξηγήστε): [ελεύθερο κείμενο]

13. Παρακαλώ γράψτε το όνομα, την πόλη ή / και τον ταχυδρομικό κώδικα για το μέρος όπου είχατε το τελευταίο μωρό σας (αν αυτό ήταν το σπίτι σας, μην γράψετε τίποτα που να μπορεί να προσδιορίσει τη διεύθυνσή σας)

Όνομα: [ελεύθερο κείμενο]

Πόλη: [ελεύθερο κείμενο]

Ταχυδρομικός κώδικας: [ελεύθερο κείμενο]

14. Ποια ήταν τα τρία καλύτερα πράγματα που βιώσατε όσον αφορά τη φροντίδα που πήρατε εκεί; Παρακαλώ βάλτε το καλύτερο στην κορυφή της λίστας.

Πρώτο: [ελεύθερο κείμενο]

Δεύτερο: [ελεύθερο κείμενο]

Τρίτο: [ελεύθερο κείμενο]

15. Εάν είχατε τη δύναμη να κάνετε τρεις αλλαγές στη φροντίδα που είχατε, ποιες θα ήταν οι αλλαγές; Τοποθετήστε την πιο σημαντική αλλαγή στην κορυφή της λίστας.

Πρώτη: [ελεύθερο κείμενο]

Δεύτερη: [ελεύθερο κείμενο]

Τρίτη: [ελεύθερο κείμενο]

Φανταστείτε ότι ένας φίλος ή μέλος της οικογένειας είναι έγκυος

16. Φανταστείτε ότι ένας πολύ στενός φίλος ή μέλος της οικογένειας είναι έγκυος. Σας ζήτησαν να τους δώσετε μια πραγματικά ειλικρινή περιγραφή της φροντίδας που λάβατε στον τόπο όπου γεννήσατε το νεότερο μωρό σας. Μπορείτε να χρησιμοποιήσετε έως και έξι λέξεις ή φράσεις. Ποιες θα ήταν αυτές οι λέξεις ή φράσεις;

1: [ελεύθερο κείμενο]

2: [ελεύθερο κείμενο]

3: [ελεύθερο κείμενο]

4: [ελεύθερο κείμενο]

5: [ελεύθερο κείμενο]

6: [ελεύθερο κείμενο]

Άλλα σχόλια

17. Παρακαλώ γράψτε τα σχόλια που θέλετε να κάνετε εδώ. Αυτά θα μπορούσαν να εξηγήσουν τις απαντήσεις σας με περισσότερες λεπτομέρειες ή να προσθέσουν οποιαδήποτε άλλη πληροφορία θέλετε να μάθουμε για τις εμπειρίες σας με τη φροντίδα της μητρότητας. [ελεύθερο κείμενο]

Στοιχεία επικοινωνίας

18. Εάν θέλετε να ενημερωθείτε για τα αποτελέσματα αυτής της έρευνας, παρακαλούμε αφήστε τη διεύθυνση email σας στον παρακάτω χώρο. Οι απαντήσεις σας σε αυτήν την έρευνα θα παραμείνουν ανώνυμες ακόμη και αν δώσετε τα στοιχεία επικοινωνίας σας. Δεν θα χρησιμοποιήσουμε τη διεύθυνση email σας για κανέναν άλλο σκοπό εκτός από να σας ενημερώσουμε για τα ευρήματα της έρευνας. [ελεύθερο κείμενο]

19. Θα θέλαμε να επικοινωνήσουμε με έναν μικρό αριθμό γυναικών που έχουν ολοκληρώσει αυτήν την έρευνα ως μέρος μιας προγραμματισμένης μελέτης παρακολούθησης. Εάν θέλετε

οι ερευνητές να επικοινωνήσουν μαζί σας μέσω email, επιλέξτε "Ναι" παρακάτω. Δεν θα χρησιμοποιήσουμε το email σας για κανέναν άλλο σκοπό και οι απαντήσεις σας θα παραμείνουν ανώνυμες (η διεύθυνση email σας θα διατηρηθεί ξεχωριστά από τις απαντήσεις σας σε αυτήν την έρευνα).

Ναι όχι

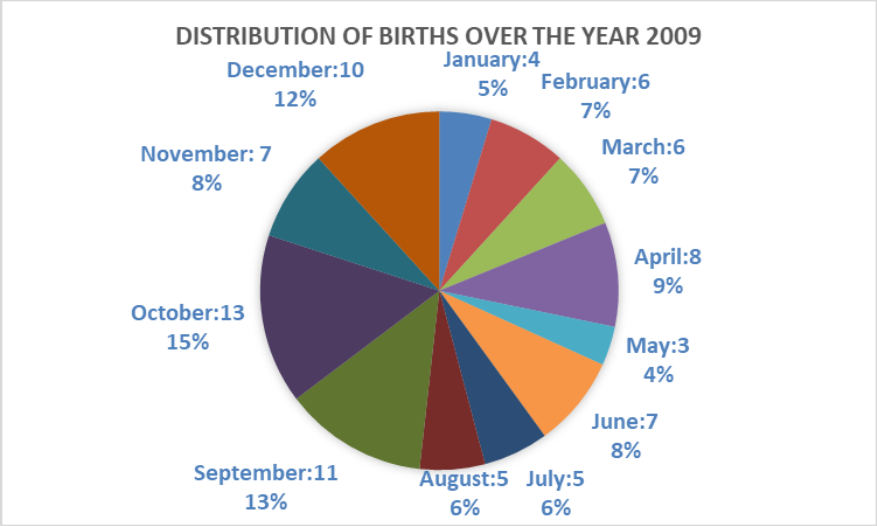
APPENDIX 3

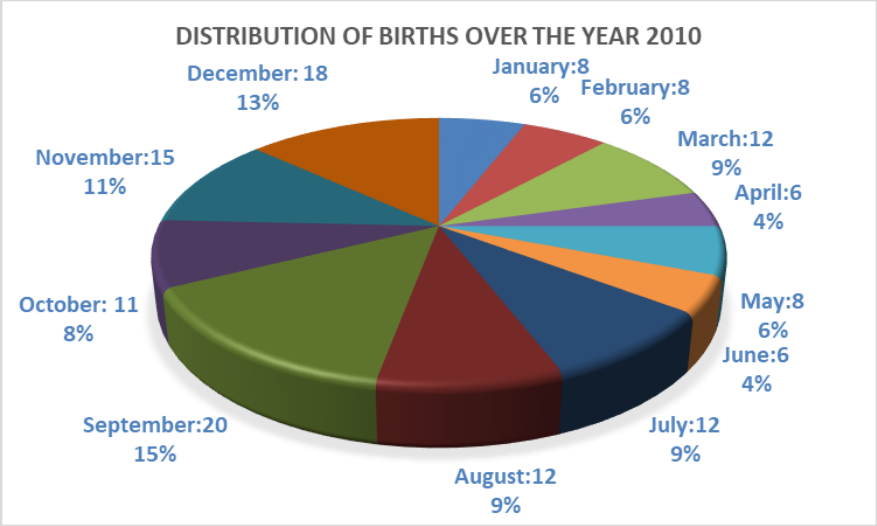
LIST OF RESPONSES AS CONCERNS THE NEAREST CITY

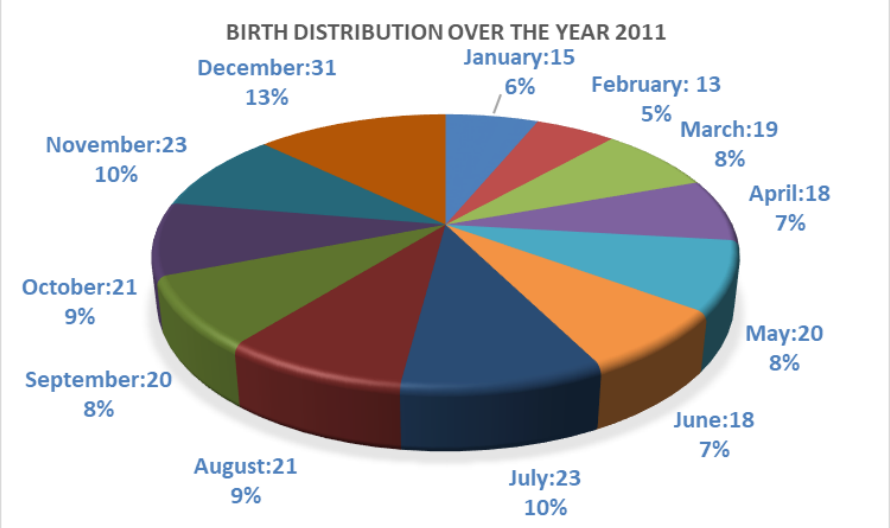
Achaia	2
Ag. Kirikos	1
Ag. Nikolaos	5
Agrinio	8
Aigialeia	1
Aigio	2
Alexandreia	2
Alexandroupoli	16
Alimos	6
Almyros	3
Amfissa	1
Amorgos	1
Anavissos	1
Andros	2
Archaia Il.	1
Argostoli Kefalonias	4
Argolida	2
Argos	5
Aridaia	1
Arta	5
Artemis	3
Asprovalta	1
Athens	596
Attiki	23
Hania	56
Hersonisos	1
Creta	1
Corfu	26
Cyclades	4
Didimoteiho	2
Dimos Arha	1
Dimos Mino	1
Dimos Volv	1
Dionissos	4
Dodekanisa	1
Doxato	1
Drama	34
Edessa	5
Elefsina	2
Epanomi	1
Eretria	1
Ermoupoli	3
Eudilos Ikaria	1
Farsala	1
Fira	1
FLORINA	2
Geraka	1
Giannitsa	1
Grevena	2
Halkida	23
Halkidiki	2
Heraklio	77
Hios	7
Ierapetra	5
Ierissos	2
Igoumenitsa	8
Iiton	1
Ikaria	2
Ioannina	24
Kalabaka	1
Kalamata	21
Kalavrita	1
kalivia	1
Karditsa	7
Karpenisi	1
kastoria	7
Kastro Voiotias	1
Katerini	15
Kavala	15
Kiato	1
Kilkis	7
Komotini	10
Corinthos	27
Koropi	4
Kos	4
Koufalia	2
Kozani	18
Kranidi	1
Krioneri	1
Lamia	13
Larissa	50
Lassithi	1
Lefkada	8
Lesvos	12
Lim. Herson	1
Litohoro	1
Livadeia	3
Loutraki	1
Marathonas	1
Markopoulo	2
Megara	2
Messinia	1
Messologi	4
Methana	1
Monemvassia	1
Mykonos	7
N. Kallikrateia	1
N. Makri	2
N. Zihni	2
Nafpaktos	1
Nafplio	8
Naousa	2
Naxos	1
Neapoli K.	2
Nestos	1
Orestiada	4
Oropos	2
Paiania	7
Pallini	6
Paros	2
Patra	47
Pavlos Mel	2
Peiraeus	46
Pella	3
Pieria	1
Pilaia	1
Pirgos	3
Poligiros	3
Polikastro	2
Prespes	1
Preveza	9
Provotsanis	1
Ptolemaida	10
Rafina	5
Rethimno	20
Rio	1
Rodos	19
Salamina	1
Samos	3
Santorini	2
Serres	29
Servia	1
Sikeon	1
Siros	4
Siteia	4
Sithonia	1
Soufli	2
Sparti	3
Tanagra	1
Thasos	1
Thermi	2
Thesprotia	1
Thessaloniki	397
Thira	1
Tinos	3
Trikala	13
Tripoli	5
Vagia Thiv	1
Vari	1
Velvendou	1
Veroia	11
Viannou	1
Volos	36
Voula	2
Makrakomi	1
Xanthi	22
Xilokastro	3
Zakinthos	9

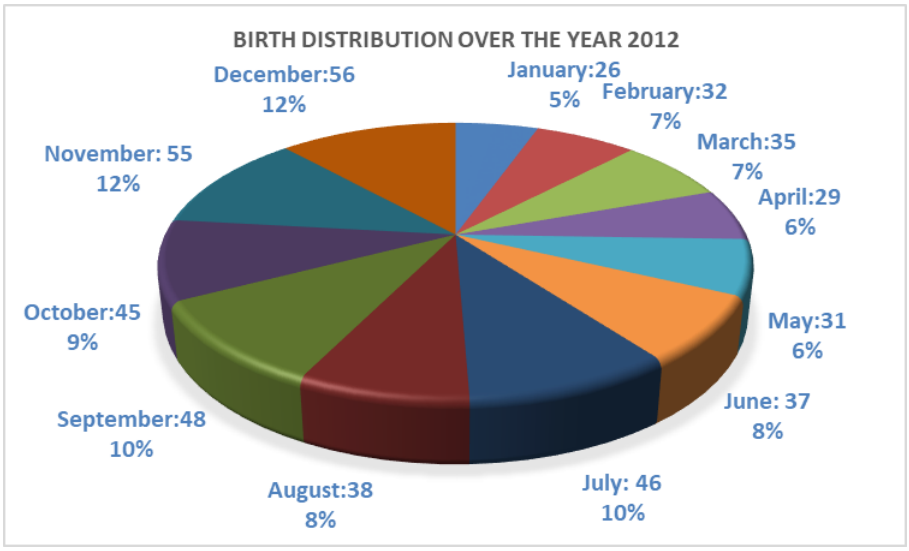
APPENDIX 4

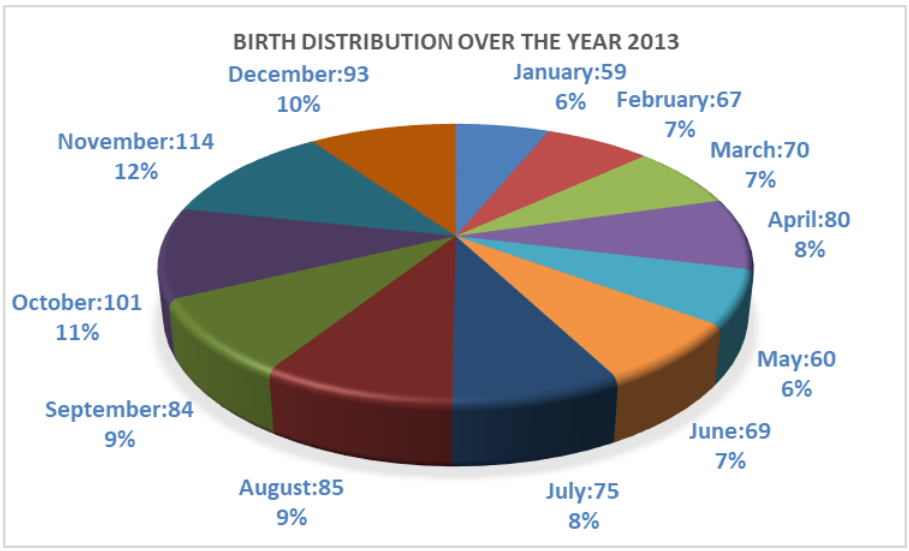
The distribution of births over the years arranged around the month of the year they were born

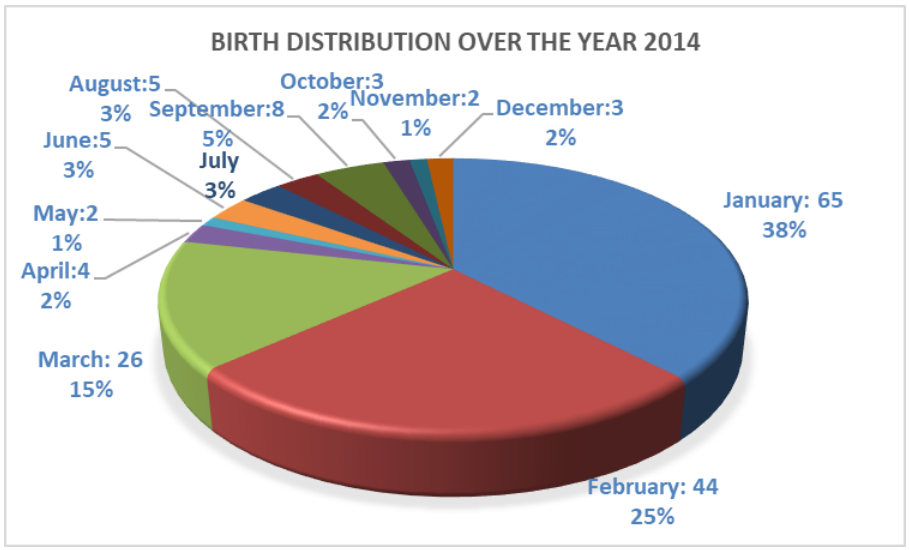







BIRTH DISTRIBUTION OVER THE YEAR 2012
December:56
12%
January:26
5%
February:32
7%
March:35
7%
April:29
6%
May:31
6%
June: 37
8%
July: 46
10%
August:38
8%
September:48
10%
October:45
9%
November: 55
12%


BIRTH DISTRIBUTION OVER THE YEAR 2013
December:93
10%
January:59
6%
February:67
7%
March:70
7%
April:80
8%
May:60
6%
June:69
7%
July:75
8%
August:85
9%
September:84
9%
October:101
11%
November:114
12%


BIRTH DISTRIBUTION OVER THE YEAR 2014
January: 65
38%
February: 44
25%
March: 26
15%
April:4
2%
May:2
1%
June:5
3%
July
3%
August:5
3%
September:8
5%
October:3
2%
November:2
1%
December:3
2%