Innovation Management in Family Health Clinics in Israel: The Contribution of Customer Needs’ Assessment

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Abstract: In recent decades, the concept of innovation has become a vital and cardinal process in any organization that strives for renewal, remaining relevant in an era with quick and tremendous changes. It is considered to be a critical component of productivity and competitive survival in healthcare as well. It is also important concept in the public health nursing. The public family health clinics are central axis of the preventive care provided to young families in Israel. This article presents a process of assessing the needs of parents of children aged 3-6, from the family health clinics (FHCs) in accordance with a changing reality as a key to defining necessary innovation to be implemented in FHCs services.

Objective: To explore parents’ needs from FHC and define means of narrowing the gap between the needs of young families and the services currently provided.

Methods: A qualitative study was conducted. Semi-structured interviews were used to collect data from 18 families that received treatment at FHC in Tel Aviv and the central Israel regions.

Results: Data revealed the contribution of an in-depth customer needs’ assessment to the required service innovation. Parents noted the importance of a personalized service adjusted to their unique family needs, as opposed to generalized instructions.

Conclusions: The findings provide further insight into various aspects that may help public health managers to improve the service in terms of attitude, professional service and added value at each encounter. Additional consideration and efforts should be given to Service marketing methods as well.

Keywords: family health clinics; public health; innovation management; needs’ assessment.

Introduction

Management of family health clinics is complex and dynamic. These health systems provide personal health services to a general population. It is the responsibility of managers in healthcare organizations to ensure that the service includes a mix of processes and services that are aligned with the needs of the population/customers receiving the service. (Gray, 2009).

Family Health Clinics- the backbone of public health in Israel

Family health clinics (FHCs) in Israel are the backbone of preventive health services with a near century long history of contributing to public health. This service provides universal child and family health services within the structure of family health community clinics, known as "Tipat Halav" (TH) serving young families and children from birth to age 6 from all social classes and ethnic groups.

Care is provided according to Public Health Services national guidelines. FHC deliver a set of services such as survey assessment of growth and development, early detection of health problems, together with providing information, guidance and counseling in diverse fields related to care of infants and children, promoting a healthy and safe lifestyle. It also includes vaccinations, nutrition and breast feeding support, screening for postpartum depression and domestic violence assessment (Rubin et al., 2017; Tasher et al., 2016).

Public health services aims at improving of the overall health of the general population. (Tomaziu-Todosia, 2019). This health approach facilitates systematic identification of children and families who require further assessment, intervention, referral and support, especially vulnerable families or those with health or development problems. Throughout history this service has undergone modifications, updates and innovation in accordance with the changing reality of each era. As a rule, service usage, especially from birth to 2.5 years, is high (94-97% of the population), but from age 3 to 6, there is considerable decline in uptake (40-70% of the population). The service strives to understand the unique needs of the entire population and examines reasons for the decline in parental uptake so as to discover ways of adapting it to the needs of families in order to design and accordingly manage, lead and implement desired changes or innovation to the service.

It is evident from previous research that young parents attribute great importance to FHC, but parents of children aged 3-6 also reported that
the service in its current form has no added value for them (Rabinovich, 2015; Vazen-Sikron, Ben-Rabi, & Rotem, 2016) Looking back, the service has undergone several updates and innovational adjustments in the past century affiliated with demographic and social changes that Israel has undergone over the years.

Considering this, it is necessary to examine factors that may change parents' perception of the service and increase their use. A needs’ assessment process plays a key role in detecting service components parents are interested in, and so design required innovation in the service.

**The Concept of Innovation**

In recent decades the concept of innovation has become highly prominent in organizational discussions. The rapid advance of technology and science dramatically changed both market conditions and customer expectations. Organizations are confronting fierce competition led by technological innovation and hectic environments, necessitating them also for quick adaption and changing to survive and keep their position (Rahimiatani, Zare, & Yazdani, 2018).

Innovation has become increasingly important for organizations as one of the main pillars of organizational function (Bagno, Salerno, & Dias, 2017). It is a generic core activity within any organization associated with a survival, growth and renewal (Tidd, & Bessant, 2018) mainly because innovation is the application of creativity or problem solving that results in a widely adopted strategy, product or service that meets a need in a new and different way (Lanchman, Smith Glasgow, & Donnelly, 2006). Striving for innovation is fundamental of every executive work and it's Managers' main task to make their organization better, that cannot be done without innovation (Barkov, Markeeva, & Gavrilenko, 2018).

Innovation in public health endeavors at improving and advancing the service by achieving greater effectiveness and higher quality responding to unmet needs. Public health innovation can be either pre-emptive or remedial. As declared by the WHO innovation is a tool for gaining better universal health coverage. (https://www.who.int/topics/innovation/en)

The Advisory Committee on Measuring Innovation in the 21st Century Economy (2007), defined innovation as "the design, development and/or implementation of new or improved products, services, processes, systems, organizational structures, or business models for the purpose of creating new value for customers and of benefit to the organization." This
A definition may use as the guideline upon which public organizations initiate service innovation, as can be seen by the following.

The Australian Innovation in Maternal Child Health Clinics (MCH), which is the Australian equivalent of FHC emphasized the uniqueness of innovation as: "The application of knowledge to behaviors, approaches or ways of working within the MCH context which are perceived as a new way of working for the service, an enhancement beyond current MCH practice or service provision, implemented by means of planned and coordinated action by individuals, teams or organization" (State of Victoria Department of Education and Training, 2016)

There are various ways of determining the nature of innovation - product, process or service that should be innovated and integrated into an organization. In some cases, the need for change/innovation is forced upon an organization by a government to mitigate healthcare concerns and challenges. Many innovation processes in healthcare are initiated by stakeholders (patients, patient advocacy groups, healthcare organizations, physicians, other healthcare professionals, etc.) Innovation may grow from the bottom up, based on a process of identifying problems raised by service providers or consumers (Vincent, Omachonu, & Einspruch, 2010). Innovation is most effective when targeted at persistent problems or issues identified by data and evidence (Lanchman et al., 2006; Tidd, & Bessant, 2018).

Tidd and Bessant (2018) maintained that the first phase of managing innovation process is searching and scanning relevant signals about threats and opportunities for change, those can be needs arising from research activities. Accordingly, the following study presents the first phase of managing an innovation process in FHCs - an assessment of population needs from the service aimed at exploring parent's needs of FHC and defining ways to narrow the gap between the needs of young families and the services that FHCs currently provide.

**Needs’ Assessment**

A needs’ assessment is a process used by organizations to determine priorities, make organizational improvements, or allocate resources. It involves determining the needs, or gaps, between where an organization envisions itself in the future and its current state. This process may lead to the development of a plan of action to address these needs (or bridge the gaps) to bring the organization closer to its desired future state (Bowling, 2014).
Health needs’ assessment is a phrase used to describe the development and refinement of well-established approaches to understanding the needs of a local population (Wright, Williams, & Wilkinson, 1998). It is a methodical process of identifying unmet health and healthcare needs of a population and adapting a service to meet these needs. It requires an epidemiological and qualitative approach to determine priorities, combining different aspects such as clinical requirements, cost effectiveness and patients’ perspectives.

In the past, a number of surveys and studies were conducted to assess parents’ needs from the service in Israel to examine trends that had to be developed according to the evolving needs of had to population (Rabinovich, 2015; Vazen-Sikron et al., 2016). In 2017, the Israeli Ministry of Health launched an internet-based survey of populations needs, but no definite conclusions have been published to date. This study presents a needs’ assessment process through qualitative research.

**Methodology**

According to a survey conducted in 2016 (Vazen-Sikron et al., 2016) there is a gap between the offered services and what parents stress they need and want. In addition, there are only few studies that examined the needs of parents of children aged 3-6 from FHC services, which creates a gap in knowledge.

This qualitative study used an interpretive study design (Bryman, & Bell, 2015) aims to answer two research questions that will help define innovation needed in FHC. **Question 1:** What do parents of children aged 3-6 require of FHC services?

**Question 2:** What elements should be implemented to meet parents' needs and improve their service experience and service usage?

This method creates opportunities to explore items of interest through exploration, explanation and description (Roberts & Taylor, 2002).

**Participants**

A convenience sampling approach was used to recruit participants for semi-structured individual interviews. The inclusion criteria were: parents to children aged 3-6 years from different socio-economic backgrounds. The parents interviewed (n = 18, 30–53 years) included three fathers and fifteen mothers. All the interviewees were married couples. Seventeen of the interviewee had at least one child age 3-6: 4 had children aged 5 years and 14 had children aged 3-4. One interviewee had one child, 12 interviewee had 2-
4 children and the other 5, from Orthodox families had 6-9 children. Economic status: 8 interviewees defined their family income as average for an Israeli household, 6 interviewees stated that their income is above average and 4, below the average. As to parents employing the service, 13 out of the 18 participants complied with the appointment scheduled to their child at age 3-6, the other 5 did not.

**Ethical considerations**

The interview guide was approved by the Helsinki Commission of Edith Wolfson University Medical Center. Interviews were conducted after participants consented to take part in the research.

**Data collection and analysis**

The research employed semi-structured interviews aiming to ensure the collection of rich data, focused on several key issues: parents experience with the current service, and the extent to which the service provided met their need, and the elements parents think are excluded from the service and the factors that may improve their responsiveness to service consumption. The interviews were digitally recorded and transcribed verbatim. They ranged from 25–60 minutes (mean 40 minutes). All interviews were conducted by the same interviewer. Thirteen interviews were conducted via telephone, and 5 interviews were conducted face-to-face. All interviews were coordinated with parents at their convenience. Qualitative content analysis was used to structure the data emerging from the interviews. The collected data were re-read and organized according to main themes derived from the interviews (Shkedi, 2014).

In this article the main categories revolve around parents need from FHC and their perceptions as to the importance of FHC services. Further defined categories were aimed to explore factors that may increase compliance to the 3-6 age visits.

**Findings**

The data provide new insights into how parents conceive the current service and the level to which it responds to their needs, and the factors that may improve their response to the service. This section explores the main themes and presents some representative statements to exemplify participants' reflections on service.
1. Parents' perceptions as to the importance of the FHC services

In general, the content analysis showed that the majority of parents attributed high importance to FHC services. As Interviewee No. 14 indicated: "I do not know any other service like this anywhere else; you can get guidance and counseling."

"Even if I say that there are things to improve, the service itself and what we have received is very significant without dispute" (interviewee No. 1)

Ten of the participating 18 interviewees stated that they regard the existing service as very significant and important but mainly essential for parents of children of younger ages, from birth to 3 years of age. As Interviewee No. 13 said: "Up to a certain age I went to the FHC because I wanted to hear what the nurse had to say, but with time I already had the ability to notice whether the child's development was at the correct pace or not" and as she elaborated "... the moment I felt safer, the less I needed to go to the appointments ..."

During the interview parents were presented with the various services currently provided at FHC, Interviewees were asked to describe the importance they attach to each component and their satisfaction with the response they received in each topic:

Growth assessment, development assessment, breastfeeding/healthy nutrition, parental skills-child care skills training, vaccination, promoting development by playing, detecting domestic violence, detecting postpartum depression, emotional support, support and reinforcement of parental functioning.

Parents' needs from FHC current services as emerging from the content analysis:

1.1. Vaccination program—the majority of interviewees (15/18) specified it as their main reason for visiting FHC, expressing their satisfaction with the information and instruction they received on this topic. "Each time the nurse gave a vaccine she explained about it, the side effects, she also had answers for question I had" (Interviewee No. 12)

1.2. Growth and development follow up and early detection, 14/18 of interviewees identified these topics as one of the main reasons for approaching FHC, alongside need for nurse's professional expertise to insure their child's growth and development are in order. "Growth is one of the main issues that interest us as young parents" (Interviewee No. 5)

Parents perceived nurses as professionals who can identify things that they cannot: "It was the nurse who identified the development delay and urged me to consult the doctor" (Interviewee No. 4). The remaining four parents stated that though the follow-up was important it seemed to be very basic. When
their child was diagnosed as having some developmental delay or some growth abnormality compared to the growth indices, the nurse indeed referred them to additional treatment and follow-up with their pediatrician. However, they expected to have the needed treatment under one roof - as One-Stop-Shop.

1.3. Parental guidance and instruction on nutrition: 11/18 of the interviewees described this as one of the most important topics which is an essential need for guidance and information as parents of a young child and for whom they visit and even counseled with her beyond the scheduled meeting dates (via telephone calls). “I went from breastfeeding to solid foods, I certainly consulted with the nurse and she gave a detailed explanation and what you should give at each stage” (Interviewee no. 4).

Parents' reservations regarding nutrition counseling were especially raised in situations where problems or complexity in feeding/breastfeeding or child's low weight gain were identified. In these cases parents though they received insufficient guidance.

1.4. Age adjusted developmental training and child enrichment - On this topic answers were varied: 10/18 found the information satisfactory; interviewee No. 15: "Each time the nurse scheduled an appointment she explained what was expected, what was going to be checked. And it answered my needs to a great extent". Other 8/18 said the information was poor, too general and unfocused: "... It was indeed lacking. There was no conversation or guidance as to how to encourage it". (Interviewee No. 6)

1.5. Emotional support and parental empowerment – although only (8/18) of those interviewed mentioned this as something they needed, they stressed it was essential especially in the early stages of parenthood, the first years of a child's life. “Every parent wants to get a pat on the back, especially when you are a parent for the first time and you do not have the confidence to be a parent. This is very important” (Interviewee No. 1).

1.6. Detecting domestic violence and postpartum depression - 16 of the 18 interviewees expressed their consensus as to the importance of detecting postpartum depression and domestic violence, as an integral part of the universal service provided to every postpartum woman. Interviewee No. 2: ""She explained to me, and referred me to get support with therapists, in some way I felt she is saving me"

Five ultra-orthodox mothers, found advantageous the fact that the professional nurse was a woman, giving them a sense of comfort to open up to her and share their feelings and problems. Some mothers doubted the
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nurse's ability to address these issues. In addition one of the fathers noted the importance also in fathers experiencing such a significant change.

We have listed above the interviewees' perceptions of the existing service, thus enabling us to evaluate the extent to which the service satisfies their needs as parents. Another theme emerging from the content analysis related to factors that would improve parents' response to the FHC services.

2. Factors that may increase service usage:

As mentioned above, all the interviewees stressed the importance of the service to them, throughout the content analysis it was clear that parents are interested in a service focusing on the special needs as families.

2.1. Family focused service – a service that is customized to the specific and unique needs of individual families, in contrast to instructions based on general guidelines and recommendations. Interviewee No. 11: "I think FCH has tremendous potential to be some kind of a 'parenting school', "it can give a lot of tools, information and tips, but it has to be adjusted to my family needs."

Interviewees also noted that the current service addresses some of their issues to some degree or another, but the training parents receive are very general and not tailored specifically to individual families. Some interviewees claimed that in complex situations that require more in-depth treatment, the existing service cannot and does not respond adequately.

Parental guidance and counseling – especially addressing challenges related to raising children aged between 3 to 6 years, on topics such as: setting boundaries, dealing with transition in their child's life, healthy and active lifestyle and leisure activities and playing. Moreover the interviewees said that these aspects are not receiving proper attention in the services currently offered by the FHC. They added that should they be able to get counseling on these topics, their use of the service will increase.

2.2. Added value to attending FHC – 12/13 who attended services for their children aged between 3 and 6 years claimed that FHC appointments offered them no added value as they received from others such as their child's kindergarten teacher (visited by most of the children in Israel, compulsory by law as from the age of three), pediatrician, afternoon classes instructors, private counseling sessions etc. When asked to pinpoint added value they expected to get, parents indicated they wanted appointments that enabled an individual and personal needs' assessment, after which they were offered follow-up services adapted to their particular needs.
As mentioned above 5 of the interviewed families did not make an appointment to the FHC at the ages 3 to 6. Therefore, understandably, the questions regarding the service received at the FHC were put only to the 13 families that did visit the clinics.

2.3. Improving client experience – 15/18 of interviewees identified the following issues as reasons for not attending FHC.

- Service availability at times convenient for parents, preferably afternoon hours which is more convenient for working parents (currently the service operates 4 mornings a week and only once on an afternoon or evening).
- Little use of technologies to disseminate information. Parents would like more up-to-date technologies improving their access to needed information.
- Interviewees expected nurses to have the latest knowledge and information and to act with the cooperation and involvement of parents and families.
- Unawareness to the importance of follow up services offered to children aged over 2 ½ as stated by most of interviewees (14/18). Parents preferred approaching other sources whenever they needed information about their child's development or problem arose since the infrequent FHC appointments for children aged between 3 and 6 (once every six or twelve months)
- Limited services–most interviewees are interested in services being expanded to offer a comprehensive response to their needs with the involvement of multidisciplinary professionals.

Further findings from the content analysis that the researcher pointed out:

1. The level of parent's expectations and demands from the service of high socioeconomic status was higher than those of an average or low socioeconomic class.

2. All the appointments to children ages 3-6, were initiated and coordinated by the nurse, which strengthens parents' lack of awareness about the need for follow-up at this age.

3. As to the Orthodox families- due to the large number of children and their rich parental experience one may think that they do not need much guidance. The findings of this study indicate that they comply to the service when it is tailored to their needs based on their experience and characteristics.
Discussion and Conclusions

A needs’ assessment process is used by organizations to determine priorities and make organizational improvements. It involves determining needs or gaps between where an organization envisions itself in the future and its current situation (Kärkkäinen, Piippo, Puualainen, & Tuominen, 2001). This article reveals customers' real FHC requirements and points out what is lacking in the existing service that should lead to the successful development of new adjusted products and services and thus improve parents’ accessing the service.

The significant conclusions that emerge from this study provide indisputable answers that emphasize the importance of a customer needs’ assessment process for both professionals and stakeholders. In addition the conclusions offer service providers with the key to defining necessary innovation.

It encourages public health managers to allocate resources to make use and implement advanced innovative therapeutic approach. Moving from being focused on protocols and general instructions to tailor made services for individual families and their diverse needs, delivering flexible quality public services customized to individual family needs.

Most desirable is infrastructure that will ensure continuous gathering of information on these new services or approaches, delivering it in an organized manner to all of the stakeholders in the organization and outside of it. It is equally important that all means and ways for implementing these methods will be looked for and delivered aptly, sustaining and supporting on a daily basis, the structures and organs endorsing the new therapeutic approach. (DiClemente, Nowara, Shelton, & Wingood, 2019)

The findings of this qualitative research reinforce family center care philosophy allowing greater flexibility and better adaptation of services to changing characteristics and needs of families receiving these services.

Domenighetti (1994) defined family centered care (FCC) philosophy as consistent with the prevailing ideology of consumer involvement in health care and prevailing ideals of empowerment, respecting personal autonomy and recognition of human rights.

This philosophy should lead Public health decision makers to formulate a new service approach tailored to the specific needs of individual families, leading both to innovation in service and innovative service.
References


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