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Research Article

A Qualitative Study: Exploring Contextual Factors around Preventive Healthcare Seeking Behavior across the Lifecycle in Lebanon at the Level of Primary Care

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Abstract

In Lebanon, where the healthcare system is largely privatized and focuses more on curative than preventive measures, recent economic and health crises have exacerbated key health indicators, leading to increased prevalence of Non-Communicable Diseases (NCDs) and falling vaccination rates. Primary Healthcare Centers (PHCCs) are crucial in promoting health awareness and prevention initiatives, yet there is a prevailing inclination among individuals to seek curative rather than preventive care, compounded by a lack of data on preventive healthcare seeking behaviors at the primary care level. A study involving 240 participants across 24 Focus Group Discussions (FGDs) in 16 randomly selected PHCCs across eight governorates sought to explore the knowledge, attitudes, and practices related to preventive healthcare services. Findings reveal an overarching positive perception of preventive services but also highlight significant gaps in knowledge and awareness of such services during critical life stages, including pregnancy, postnatal care, childhood, adolescence, and adulthood. Participants showed a clear preference for curative services, with noticeable disparities in knowledge and practices influenced by gender, nationality, and the support status of PHCCs. Financial constraints and the fear of disease identification emerged as major barriers to accessing preventive care. To counter these challenges, the study concludes with recommendations for enhanced community awareness campaigns tailored to different genders, ages, and nationalities, the provision of preventive services at reduced costs, and the integration of these services into routine PHCC offerings. Additionally, the implementation of prevention projects at various levels, both within PHCCs and the wider community, is advised to improve the uptake of preventive healthcare services.

Keywords: Preventive Care; Health System; Primary Care; Health Seeking Behavior; Lebanon

Abbreviations: ANC: Antenatal Care; FGD: Focus Group Discussions; iNGO: International Non-governmental Organization; IRB: Institutional Review Board; MoPH: Ministry of Public Health; NCD: Non-communicable Diseases; PHC: Primary Healthcare; PHCC: Primary Healthcare Center; PHCN: Primary Healthcare Network; PNC: Postnatal Care; UNICEF: United Nations Children's Fund

Introduction

The third Sustainable Development Goal (SDG-3) of the United Nations Agenda "Good health and wellbeing" highlights the importance of access to quality healthcare, including comprehensive preventive health services [1]. Preventive care services play a crucial role in mitigating future healthcare expenditures and reducing burden of disease in the population. Cost savings can arise from primary prevention measures such as vaccinations, smoking cessation programs and weight loss initiatives, in addition to routine interventions to prevent disease progression (aspirin, contraception…). On other hand, secondary prevention involving the early detection and interception of diseases before they advance, as seen in cancer, osteoporosis and cholesterol screenings may yield more healthy life-years and economic advantage [2].

In Lebanon, healthcare services are predominantly privatized, focusing more on curative rather than preventive measures, and are often fragmented, a legacy of the prolonged civil war from 1975 to 1990. This period of conflict led to significant displacement and migration, leaving a lasting impact on both the population and the healthcare infrastructure [3,4]. Despite ongoing efforts to strengthen the public health sector, challenges persist. Since 2019, Lebanon has simultaneously suffered an unprecedented and multifaceted economic, financial, social and health crisis. These crises, considered among the most severe globally since the mid-nineteenth century, have strained Lebanon's health system, exacerbating existing pressures such as growing demand for public healthcare, resource scarcity, and increased financial hardship [5]. As a result, key health indicators have worsened, with rising maternal and neonatal mortality rates, declining vaccination coverage, and reduced access to hospitalization by at least 15 percent [5]. The drastic decline in immunization coverage following a cascade of crises has placed an immense strain on the public health system, increasing the risk of outbreaks of vaccine-preventable diseases [6]. Vaccination stands as a key element of primary healthcare strategy, designed to prevent diseases at their root through primary healthcare measures [6]. Likewise, when it comes to family planning and sexual and reproductive health, contraception usage in Lebanon has remained stagnant for the past forty years despite awareness and accessibility to modern family planning methods [7]. Barriers such as religious beliefs, youth, and lower educational attainment hinder adoption [7]. The contraceptive prevalence rate stands at 55.6%, comparable to the rate reported in 1971, indicating minimal change over time (14%) [7]. Furthermore, non-communicable diseases including cardiovascular and respiratory diseases, diabetes, and cancer continue to present as the predominant component of health profile globally and nationally with 91% of all deaths in Lebanon attributed to NCDs [8]. According to the World Health Organization's (WHO's) Global Status Report on non-communicable diseases (NCDs), NCDs are the leading cause of death globally and the elimination of their risk factors could prevent more than 80% of cardiovascular diseases and diabetes type 2 and more than 40% of malignant diseases [9]. Today, a recent cross-sectional study examining the occurrence of Non-Communicable Diseases (NCDs) and associated risk factors among adults in Lebanon found out that among the total study group, 52.4% reported having one or more NCDs and the most prevalent NCDs identified were hypertension (32.8%), diabetes (26.8%), cardiovascular disease (16.1%), asthma (7.1%), and cancer (3.7%) [10]. This research not only shows the significant prevalence of NCDs among adults residing in Lebanon but also re-emphasizes the importance of addressing the prevention, treatment, and management of NCDs and their associated risk factors in Lebanon, highlighting the urgency of allocating specific resources to execute focused interventions utilizing a multi-sectoral strategy [10]. With the escalating burden of chronic Non-Communicable Diseases (NCDs), antimicrobial resistance, and epidemics, there has been a noticeable shift globally from curative care to preventive care and health promotion [11]. On the Primary Healthcare (PHC) level, previous evidence highlighted that chronic diseases were found as determinants positively associated with preventive health services utilization [12]. Primary Healthcare Centers (PHCCs) in Lebanon serve as vital pillars in promoting health awareness and implementing prevention initiatives, distributing essential medications, and advocating individuals to adopt healthier lifestyles [13].

However, the Lebanese healthcare system continues to prioritize secondary and tertiary care over preventive care, and focuses mainly on curative measures with technology-driven approaches [14]. In Lebanon, only 5% of the Ministry of Public Health (MoPH) spending is allocated to preventive and primary care [15,16]. Additionally, the healthcare sector is predominately privatized, with private health institutions holding considerable influence over both the healthcare delivery and financial matters. As a consequence the Lebanese health sector relies heavily on private health financing, where only 4.3% of its population are covered

by the Civil Servants Cooperative, and only 9% are covered by various military financing plans [14]. As a result, out-of-pocket expenditures continue to be the primary source of health financing in Lebanon. Multi-leveled barriers to accessing healthcare in the previous decade has led to an increase in the number of impoverished Lebanese. Accordingly, these individuals are more prone to neglect preventive care or opt for self-management of their chronic diseases, giving that outpatient clinics are typically not covered by most private insurance schemes. Instead, it is reimbursed afterward through the national security fund. Consequently, people often delay seeking care to avoid spending money on preventive measures until their condition reaches a critical stage they can no longer avoid, forcing them to proceed directly to hospitals thus bypassing the treatments offered in PHC centers [17,18]. Another barrier reported in seeking preventive services is the weakness in the culture of prevention and inadequate awareness and acceptance among the Lebanese population [14].

To strengthen primary healthcare in Lebanon, the PHC department in the Ministry of Public Health, in collaboration with UNICEF Lebanon, is actively conducting research efforts to guide project design and implementation, and to inform decision-making and policy development at the primary health care level. However, limited data is available on preventive healthcare seeking behaviors and preventive programs and services offered. This study aims to understand preventive healthcare knowledge, attitudes, and practices across the lifecycle of individuals residing in Lebanon at the primary health care level.

Methodology

Study Design

This qualitative study is a nationwide cross-sectional study conducted via Focus Group Discussions (FGDs) from July to August 2023, involving residents of Lebanon. The study encompassed both beneficiaries who regularly visit primary healthcare centers (PHCCs) in Lebanon and non-beneficiaries who have never benefitted of such services. FGDs took place in randomly chosen PHCCs in all governorates of Lebanon. The selection of PHCCs was executed through random number generation, with one supported and one non-supported PHCC randomly chosen per governorate. A supported PHCC refers to one that receives support from an international agency and offers subsidized services to its beneficiaries, while a non-supported PHCC does not benefit from such support. This methodological approach aims to ensure diverse representation across different PHCC types and locations. The criteria for PHCC inclusion included having a contractual agreement with the Ministry of Public Health (MoPH), providing the five fundamental primary healthcare services for a minimum of three years, and utilizing PHENICS, which is the MoPH health information system.

The sampling methodology is summarized in Figure 1. A list of 297 PHCCs shared by MoPH through PHENICS was considered. After applying the inclusion criteria, 70 PHCCs were excluded, resulting in a final eligible list of 227 PHCCs. Random selection using Excel's feature was done, choosing one PHCC per governorate. After validating the selected PHCCs, four PHCCs were re-selected.

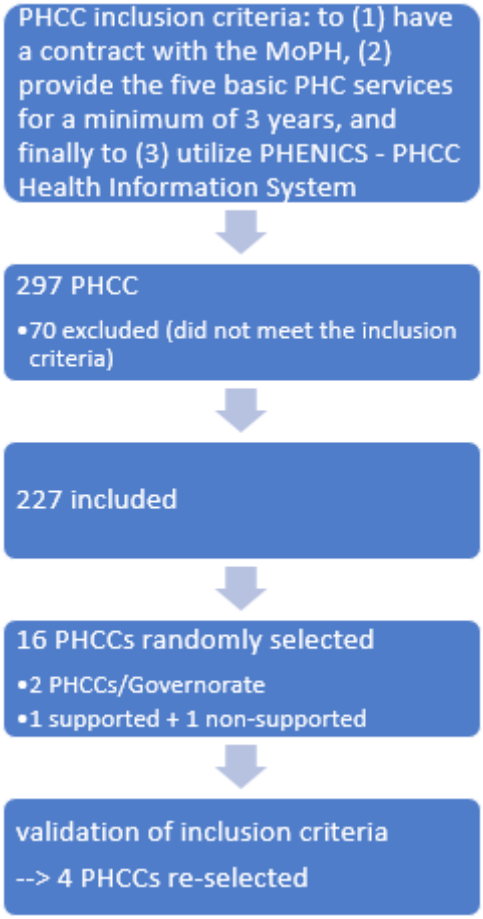

Figure 1: PHCC Sampling Methodology.

Sampling and Data Collection

A total of 24 Focus Group Discussions (FGDs) took place across 16 Primary Healthcare Centers (PHCCs) in 8 governorates. The study targeted both beneficiaries and non-beneficiaries, encompassing individuals of all ages and nationalities. Beneficiaries were defined as those currently benefitting from services at PHCCs and who have received at least one service within the past three months, while non-beneficiaries are individuals who do not utilize healthcare services at PHCCs. The sampling strategy aimed to ensure representation across various age groups, including

parents with children under 18, pregnant women, recent mothers, adults, and older adults, including those receiving services for non-communicable diseases. The sample size for each targeted population is detailed in Table 1. Gender distribution was evenly balanced, with one male and one female FGD conducted per governorate, randomly selected within each governorate. This approach resulted in an equal number of FGDs categorized by gender and PHCC supporting status.

Data Collection Instrument	Target Population	Sample Size	Characteristics
Focus Group Discussion (FGD)	Beneficiaries of different age groups and nationality that currently seek health services inside PHCCs	16 FGD with 10-12 participants in each (2 FGDs / governorate)	○ 4 FGDs with males in supported PHCCs ○ 4 FGDs with males in non-supported PHCCs ○ 4 FGDs with females in supported PHCCs ○ 4 FGDs with females in non-supported PHCCs
	Individuals (>18 years old) residing in Lebanon that have never received a primary healthcare service in PHCCs	8 FGD with 10 - 12 participants in each: 1 in the catchment area of every selected supported PHCCs	○ 4 FGDs with male non-users in supported PHCC ○ 4 FGDs with female non-users in supported PHCC

Table 1: Summary of data collection instruments in 16 selected PHCCs.

Beneficiary participants were chosen at random from the service records of individuals who had utilized healthcare services at Primary Healthcare Centers (PHCCs) within the previous three months. The research team assisted the PHCC staff to randomly select thirty beneficiaries, adjusting for gender as needed, and caregivers of selected children were invited to participate. To safeguard the confidentiality of beneficiaries' identities and contact details, the PHCC staff-initiated communication with the chosen beneficiaries and extended invitations for the agreed-upon dates and times of the Focus Group Discussions (FGDs) with the research team. On average, each FGD consisted of 10 participants.

FGDs with non-beneficiary participants were exclusively held at supported PHCCs due to the availability of outreach activities supported by international non-governmental organizations (iNGOs), which facilitated access to communities beyond regular service users. Participants were recruited by outreach volunteers during their routine activities in the catchment area of supported PHCCs and were invited to join the FGD held at the PHCC by these volunteers. Non-beneficiary participants were required to meet certain criteria, including being above 18 years old, residing within the catchment area of selected supported PHCCs, and either never having utilized PHCC services or not having done so within the past three years. Within each selected supported PHCC, one FGD was conducted for each gender, with gender selection randomized.

It's noteworthy that each category of FGDs (Female-supported, female-not supported, male-supported, male-not supported) included a varied mix of nationalities among the participants. In some FGDs, there was nearly an equal representation of Lebanese and Syrian participants, while in others, one nationality group predominated. This distribution occurred randomly as a result of random beneficiary selection and attendance. However, this diverse composition allowed for the collection of comprehensive data, offering both nationalities the chance to freely express and exchange information in a conducive setting.

Data Collection Tool

Focus Group Discussions (FGDs) were conducted using a guide designed to elicit personal experiences and insights into the knowledge, attitudes, and behaviors of both beneficiaries and non-beneficiaries concerning primary healthcare services, with a focus on preventive services. The discussions covered hypothetical scenarios spanning various life stages. When discussing barriers, participants were encouraged to propose solutions and recommendations to improve healthcare services. Facilitators employed probing questions and prompts to steer discussions and encouraged participants to engage in interactive activities and visual aids to express their perspectives. This approach fostered both direct and indirect communication of viewpoints and recommendations through engaging activities. Facilitators ensured

active involvement by structuring FGDs around interactive, creative, and participatory methods.

The FGD Guide was developed in English, translated into Arabic, and back translated to English for accuracy.

Analysis

The FGDs were recorded and qualitatively analyzed using thematic analysis. The recordings were coded and entered on a predefined FGD analysis framework following an inductive approach, being the lifecycle course following case scenarios. However, the framework was dynamic in accommodating any emerging themes in a deductive approach. Findings were then analyzed and the interplay between these themes was explored. This approach allowed a comprehensive exploration of data facilitating a comprehensive understanding of participants views and perspectives, allowing a comparison between several factors and concluding with relevant recommendations.

Ethical Considerations

This study received approval from the International Review Board at Rafik Hariri University Hospital on July 13th, 2023. Participants were given the choice to withdraw from the study at any point, and written informed consent was obtained from all participants. There were no direct risks or benefits to participants, but the research contributes to the strategy of the Ministry of Public Health (MoPH) and enhances Lebanon's Primary Healthcare Network. Steps were taken to minimize any discomfort during discussions. Additionally, non-beneficiary participants were provided with information sheets on Primary Healthcare Center (PHCC) services to enhance their understanding of primary healthcare and PHCCs.

Results

The findings presented in this article constitute a subset of results derived from a broader research endeavor aimed at strengthening primary healthcare in Lebanon and understanding the contextual factors and drivers to seeking primary healthcare services in Lebanon. The focus of this article is specifically on preventive services, being one of the main pillars of primary care.

Demographics

A total of 240 participants participated in the FGDs (168 beneficiaries and 72 non-beneficiaries). Average participation per FGD was 10 participants with the minimum being 6 and the maximum being 17 participants. The demographic characteristics of the participants are presented in Table 2.

Demographics		N	%
Participant	Beneficiaries	168	70%
	Non-beneficiaries	72	30%
Gender	Males	110	46%
	Females	130	54%
Nationality	Lebanese	151	63%
	Syrian	85	35%
	Others	4	2%
PHCC Support Status	Supported	148	62%
	Not Supported	92	38%
Age	18-24	31	13%
	25-65	168	70%
	65-and above	41	17%

Table 2: Demographic characteristics of FGD participants.

The participants displayed a broad spectrum of characteristics, reflecting diverse demographic characteristics, economic statuses, occupations, and educational backgrounds. Most were either parents, caregivers, or grandparents, with children spanning different age groups, from infants to adolescents. Additionally, the group consisted of pregnant women, students, recently married couples, and individuals of various ages who were not married. This diverse mix ensured a wide range of perspectives and experiences, leading to a more comprehensive understanding of the needs and viewpoints of both beneficiaries and non-beneficiaries.

Current Reported Health Seeking Behaviors in PHCCs

After discussions with beneficiaries regarding their current healthcare-seeking behaviors within PHCCs, it became evident that individuals of all genders, nationalities, and from various geographic areas generally seek curative services for acute illnesses more often than preventive services, except for immunization. Beneficiaries reported on their most sought-after services in PHCCs, and these were vaccinations, chronic medications, and medical consultations for acute conditions with pediatricians and specialist physicians.

It's important to note that participants from supported PHCCs reported receiving and seeking more preventive services compared to participants from non-supported PHCCs, with no significant difference across nationalities. This can be attributed

to the awareness efforts conducted in supported PHCCs and the integration of screening services within the PHCC, making them more affordable and easily accessible. Overall, all beneficiaries in non-supported PHCCs prioritized curative care due to the current circumstances in Lebanon and the financial burden. The primary concern is addressing acute cases and managing ongoing chronic conditions. Although participants acknowledged the importance of taking action to remain healthy and early detection of health issues, most revealed abstaining from preventive care due to Lebanon's economic crisis and substantial fear of needing more expensive medical tests or medical treatments. They confessed to postponing care until their health deteriorates significantly.

"If I do tests, I will start a never-ending cycle of medical treatment, I feel fine and that is enough" (Syrian, 50-year-old Female)

As for the visitation frequency of beneficiaries to PHCCs, it varied with parents and caregivers visiting more frequently, particularly for pediatric care, followed by individuals with chronic conditions attending monthly to benefit from medications or for acute conditions. Females visit PHCCs more frequently, often due to their responsibility for family health, especially during pregnancy and postnatal care. As for Males or healthy adults, they reported visiting once or twice per year, only when needed for acute conditions that, in their perception, requires medical attention.

Furthermore, non-beneficiary health seeking behaviors varied significantly by nationality. Lebanese non-beneficiaries exhibited a more proactive healthcare-seeking behaviors, utilizing a wide range of preventive and curative services in private clinics, polyclinics, and hospitals. Syrians, on the other hand, primarily seek curative services and immunization in health clinics within camps or supported governmental hospitals. This nationality difference across the non-beneficiary group can be attributed to the financial component, as most Lebanese non-beneficiaries exhibited accessibility to insurance schemes and private healthcare services, which might be correlated to enhanced awareness and physician communication and recommendation of such services. It is important to note that all non-beneficiaries reported that curative services are easier to seek for their lower cost.

No major differences were noticed across genders, other than the fact that females were more involved in their children's health conditions and were the ones responsible for their children's vaccination.

"My wife comes to the PHCC, and she follows up on their vaccinations and follow up, I am not involved" (Syrian father of 3 children)

However, even with this autonomy, it was noticed that Male figures hold greater authority in healthcare decision-making in some households, especially where they are perceived as the primary decision-makers due to cultural or traditional norms. They might influence the location and the timing of seeking healthcare services, whether acute or preventive.

Finally, the decision to seek healthcare services, whether curative or preventive, was reported by both beneficiaries and non-beneficiaries to be influenced by several factors, including the proximity of healthcare facilities, expenses involved, and the severity of symptoms. Also, previous experiences within PHCCs, such as waiting times, service quality, and interactions with healthcare providers, were reported as significant factors in the decision to seek care. Furthermore, the attitudes and communication skills of healthcare workers were highlighted as crucial factors shaping future healthcare-seeking behaviors, particularly regarding preventive services.

Participants highlighted various challenges encountered when accessing healthcare services at PHCCs across different levels and for different needs. When asked to prioritize these barriers, individuals from diverse nationalities, regions, and both genders consistently identified operational procedures at PHCCs as the most urgent and challenging issues. These encompassed appointment arrangements, staff demeanor and communication, as well as the availability of services, including specialized care. Notably, a significant barrier cited was the lack of awareness and understanding regarding the range of services offered, whether curative or preventive. Additionally, some caregivers expressed apprehension about the risk of their healthy children contracting contagious diseases while awaiting vaccination in PHCC waiting areas, reflecting concerns about potential infection transmission. As such, parents and caregivers reported hesitancy in coming to the PHCC when the visit is not as urgent or not relatively needed. Difficulties encountered when accessing curative services, compounded by past negative encounters, serve to deter individuals from pursuing preventive services, even when equipped with knowledge and awareness. Moreover, cost emerges as the foremost obstacle hindering the utilization of preventive services.

Knowledge and Attitudes towards Prevention Care

Beneficiaries and non-beneficiaries were asked about their awareness and attitudes towards preventive healthcare across different life stages. Notably, female participants displayed a better understanding and awareness of preventive services compared to males, expressing positive attitudes towards maintaining good health and preventing serious medical conditions. Commonly mentioned preventive measures by females included routine immunizations, the COVID-19 vaccine, HPV vaccinations, and cancer screenings, particularly for cervical and breast cancer. Some females emphasized the need for more frequent screening for individuals with hereditary conditions, sharing personal stories of early detection leading to successful treatment. In contrast,

most male beneficiaries showed limited awareness of preventive care, with only a few recognizing the importance of vaccines for children. Some acknowledged preventive measures implemented during the COVID-19 pandemic, such as sanitizer and mask distribution at healthcare centers.

Interestingly, beneficiaries from supported PHCCs exhibited a deeper comprehensive understanding of the available preventive services and demonstrated heightened awareness of their importance. They confidently shared this knowledge, likely influenced by the ongoing awareness initiatives conducted within supported PHCCs. Nonetheless, overall, all participants displayed insufficient knowledge about the available preventive services offered at PHCCs. A female participant mentioned:

"I must admit, I am uncertain about the recommended check-up routines, what they entail, and when they should be done. If I had a clearer understanding, I would certainly prioritize them" (Lebanese Female)

Furthermore, males reported that their primary concern lies in addressing acute cases and managing ongoing chronic conditions when compared to acute cases. They explained that due to the prevailing economic crisis, their focus is on providing support for their families and responding to urgent acute conditions. Females on the other hand, showed a more proactive approach, however, they confessed to waiting for seasonal campaigns when seeking preventive services, as they reported on cost as a significant barrier. As mentioned earlier, past encounters within PHCCs were identified as key influencers of their choices. Positive experiences, characterized by high-quality care, effective communication, and positive attitudes from healthcare providers, motivate individuals to actively seek out healthcare services. Conversely, negative past experiences strongly dissuade them from seeking healthcare services, whether curative or preventive, within PHCCs.

"Attention and care (الاهتمام والعناية), there is some people (referring to healthcare workers) do not care" (Lebanese, Mother of 4 children)

Participants shared their attitudes and practices on preventive services across the lifecycle including Sexual and Reproductive Health, Child Health & Adolescents, and non-communicable diseases.

Knowledge and Attitudes toward Sexual and Reproductive Health Preventive Services

In terms of sexual and reproductive health, participants shared their knowledge and practices towards family planning as a preventive service available at PHCCs. Most male participants exhibited minimal interest in accessing family planning services. None actively sought out these services at PHCCs, with the majority demonstrating a lack of awareness regarding the availability of such services. Many were unaware that condoms were provided free of charge upon request at PHCCs and felt uncomfortable discussing this topic. They admitted to avoiding requesting condoms at PHCCs and delegated family planning responsibilities to their wives.

On the other hand, female participants generally agreed on the crucial role of family planning in preventing unwanted pregnancies. However, noticeable differences emerged in practices and beliefs between Syrian and Lebanese participants. Syrians tended to hold stronger beliefs about the adverse effects of contraceptives on health compared to their Lebanese counterparts, and this influenced their actual practices. There was a tendency among Syrians to discourage the use of family planning early in marriage due to fears of infertility. Others expressed reluctance to use contraceptives due to side effects such as nausea, while some hesitated due to cultural or religious beliefs. Many women advocated for natural contraception methods like the calendar method, despite acknowledging their limited effectiveness.

While some women acquired information from family members, self-education, or personal experiences, females attending both supported and unsupported primary healthcare centers demonstrated limited knowledge about family planning services provided at PHCCs. Particularly in unsupported centers, some women mentioned consulting pharmacists for information or services. Several females highlighted the lack of communication regarding the availability of family planning services, such as condoms, resulting in missed opportunities for safe contraception. One woman emphasized the importance of educational and awareness sessions at PHCCs for effective family planning, while others emphasized the significance of support from family members and self-education.

Interestingly, participants from supported centers tended to have a more positive view of family planning as a preventive measure. However, many agreed that awareness and knowledge of family planning primarily came from family sources and self-education including online sources.

It is important to note that none of the participants exhibited knowledge or awareness of other preventive services available within the scope of sexual and reproductive health such as those related to sexually transmitted diseases.

Knowledge and Attitudes toward Maternal Antenatal and Postnatal Care

Participants shared knowledge and practices related to preventive services during the period of pregnancy and postpartum. Among female participants, there was a unanimous consensus on the importance of promptly seeking guidance from healthcare

professionals upon discovering a pregnancy. However, opinions differed regarding the frequency of antenatal visits with Lebanese emphasizing on the importance of consulting healthcare professionals on monthly basis and more frequently towards the end of the pregnancy. Syrians, on the other hand, reported on mixed practices with some saying it is not needed if they are feeling fine or visiting is important quarterly.

"During my pregnancy, I came to see healthcare providers only once during every trimester, and I think it is enough" (Syrian Female)

Instances of completing an entire pregnancy without visiting healthcare professionals where also shared by some participants. Only a minority expressed negative attitudes toward antenatal follow-up linking it to some conspiracy theories, primarily among Syrians and due to past negative experiences and misconceptions.

"It is best not to do any follow-up, once I came and they gave me all these pills (referring to folic acid and multi-nutrient pills) and they made me lose the baby, all of this is irrelevant" (Syrian Female)

Regarding postnatal follow-up, attitudes and knowledge varied among participants. The majority expressed positive attitudes and emphasized the importance of these visits for both the baby and the mother. Participants showed awareness of the timing of postnatal visits and the preventive services offered, including psychological support. However, a significant number lacked awareness of postnatal care and its significance. Some reported seeking postnatal care exclusively for the baby, or only for the mother in cases of complications.

Overall, attitudes toward the importance of these services varied: positive among the well-informed, mixed among those unaware of their existence, and negative among those who viewed them as unnecessary. Financial constraints and quality of care were the driving factors of antenatal care and follow-up preferences.

Knowledge and Attitudes on Preventive Services for Children & Adolescents

Participants discussed preventive care for children and adolescents. Interestingly, the first theme that emerged when discussing preventive services was immunization. Most participants, and more prominently parents and caregivers, emphasized on the significance of immunization as the as the primary and most vital preventive service. Participants showed knowledge towards its importance and viewed it as crucial in preventing serious illnesses. Attitudes towards immunization were overwhelmingly positive. For instance, a Lebanese mother with five children stated that:

"The vaccines are so important and prevent diseases such as polio" (Lebanese mother of 5 children)

Additionally, nearly all female participants demonstrated understanding and awareness regarding the initial vaccination visit, typically scheduled at 2 months, and emphasized its significance. However, there was variability in their knowledge of the complete immunization schedule. While most acknowledged that immunization extends beyond early childhood, a few believed that its importance diminishes after a certain age, commonly around five years old.

"We didn't know vaccines are important till the age of 18, we stopped at the age of 5" (Lebanese, Father to 3 children)

Also, there was a significant variation in knowledge and awareness of immunization as a preventive service between genders, with females exhibiting greater knowledge compared to males. However, no significant disparities were observed across nationalities.

Concerning other preventive services, only a minority of participants, whether male or female, recognized the importance of various other preventive measures. These included monitoring developmental milestones in the first year, assessing malnutrition and growth indicators like height, weight, and circumference, as well as undergoing vision, hearing, and dental check-ups, among others. However, the majority lacked awareness of these services, focusing mainly on immunization as the primary preventive measure during childhood.

Interestingly, a small number of participants showed negative attitude and a reluctance towards routine check-ups for children. This sentiment was evident when one mother expressed her interest in regular consultations with healthcare providers, and another mother responded as follows:

"You are very obsessive about your child health; they are children, and it is normal for them to get sick" (Lebanese Mother of 2 children)

When discussing current healthcare-seeking behaviors with parents and caregivers concerning their children, the majority mentioned only seeking pediatrician consultations when their children displayed symptoms or signs of illness, often skipping routine checkups. Reasons cited included lack of awareness, busy schedules, consultation fees, and transportation costs. Interestingly, all female participants from various nationalities demonstrated awareness and knowledge regarding the newborn's initial visit to a healthcare professional for consultation and vaccinations. They expressed positive attitudes towards this visit and were aware of the recommended timing, typically between one to two months of age. While some females acknowledged the possibility of missing

the postnatal visit, they emphasized never skipping the newborn's first visit.

Furthermore, none of the participants, irrespective of gender, showed information regarding preventive services tailored for adolescents defined as individuals aged between 13 and 18 years old. Only a minority acknowledged the importance of educating and raising awareness among adolescents on various subjects. Certain parents highlighted the significance of services aimed at promoting awareness and preventing risky behaviors such as smoking and substance use.

When discussing the current healthcare-seeking behaviors among adolescents, parents and caregivers emphasized that adolescents typically only seek curative services. They did not report any instances where adolescents sought preventive services. Adolescents may visit PHCCs only when they are already experiencing health issues or acute illnesses, but they may encounter challenges and resistance in doing so, often neglecting regular check-ups or preventive measures. Challenges included mainly resistance from adolescents in admitting the need for health services and physically presenting to the facility due to perceptions of a negative experience, long waiting time, shyness, or preference to go to a private clinic.

"He is shy to come to the PHCC, he knows he is sick, but he won't come" (Lebanese Mother)

Additionally, diverse attitudes were observed regarding adolescents seeking healthcare services independently within PHCCs. Most caregivers, regardless of gender or nationality, expressed a preference for always accompanying their adolescents to the PHCC and inside the clinic.

"I don't trust my adolescent to come alone to the center, I prefer to come with him and make sure he is received the service he needs" (Syrian Father)

"I don't think teens would go alone to seek healthcare services, they need their parents support and presence" (Lebanese Mother)

"If she wants to go alone, this means she is hiding something, and I need to know" (Syrian Mother)

When queried about the main sources of health information for adolescents, parents and caregivers indicated that friends and online platforms, including social media and the internet, were the primary sources, followed by school, family, and awareness campaigns or events organized by PHCCs. One mother also mentioned the "street" as a source of information. They all stressed the importance of raising awareness and building capacity among parents and caregivers to better understand how to interact with adolescents, thereby promoting positive healthcare-seeking behaviors, both preventive and curative. Additionally, they highlighted the need for PHCCs to tailor their services and outreach activities to meet the needs of adolescents, collaborating with schools, scouts, and youth summer camps.

Overall, all participants lacked adequate knowledge and awareness about available services for adolescents, particularly preventive services. All participants displayed a favorable outlook towards preventive services for adolescents but demonstrated inadequate knowledge and awareness. None reported actively seeking any preventive service for adolescents, including immunization.

Knowledge and Attitudes on Preventive Services during Adulthood

Participants discussed various preventive services across adulthood. During the inquiry into understanding the significance of preventive screenings, both males and females acknowledged their importance for achieving early and overall better health outcomes. It was evident that the there was a significant lack of knowledge among the participants about the available preventive services across adulthood. However, there was a shared interest among participants in gaining further knowledge about the available preventive services, their scheduling, and the benefits they offer. Both genders expressed concerns regarding the affordability of these services, particularly given the ongoing economic crisis in Lebanon.

In general, and in line with what was previously discussed, females exhibited a superior understanding of preventive screenings, engaging in discussions about screenings for hypertension, diabetes, breast cancer, and various chronic conditions compared to males. Most female participants concurred on the significance of regular screenings for early detection and treatment. They perceived checkups and laboratory tests as proactive measures to uphold good health and mitigate the risks associated with chronic conditions. By adopting preventive measures, they expressed feeling reassured and empowered in managing their health. Most females indicated their readiness to seek these services if necessary. The most reported on preventive services discussed by female participants were those related to women health, including breast cancer and cervical cancer.

Additionally, some older female participants, aged between 40 and 65, availed themselves of services such as screening for non-communicable diseases including hypertension and diabetes. Nonetheless, females expressed concerns regarding the apparent lack of interest in preventive services among males when discussing practices of their spouses or male figures in their families. This attitude was attributed by them to the cultural norms, the tendency to minimize health concerns, fear of diagnosis, among other factors imposed on males.

Likewise, most male participants demonstrated a significant lack of awareness and limited familiarity with routine preventive services, although many acknowledged the importance of mitigating non-communicable diseases. A minority grasped the significance of these services in alleviating the burden of non-communicable diseases and detecting conditions early but expressed uncertainty regarding their availability at PHCCs and the associated costs. One male participant remarked:

"If we caught the disease at its beginning this will help us to receive the right treatment at the right moment without getting more complications." (Lebanese Male)

A portion of the participants diagnosed with chronic diseases mentioned that they haven't pursued preventive services, and those below the age of 40 haven't accessed these services either. Most males acknowledged the necessity for follow-up visits at PHCCs when living with a chronic condition, typically once or twice monthly. Expressing gratitude for early detection of his health conditions, one participant, a 57-year-old male, remarked:

"I am so thankful they discovered from NCD screening and after doing laboratory tests that I have high blood pressure and high cholesterol level. Maybe without this screening I will not be able to know my disease, and maybe I will suddenly get a stroke. Now I take my treatment every month and I follow up with lab tests each 6 months." (Lebanese Male).

Overall, even though participants showed positive attitudes towards the importance of preventive services in various periods of the lifecycle, participants exhibited limited awareness towards the availability of these services and limited readiness in proactively seeking these services.

Discussion

To our knowledge, this study is the first national qualitative study focusing on individuals' perceptions and practices towards preventive care across the lifecycle in primary care settings in Lebanon. Beneficiaries, defined as utilizers of primary healthcare services in supported and unsupported PHCCs in Lebanon, and non-beneficiaries, defined as non-utilizers of primary healthcare services in Lebanon, from different nationalities, genders, and geographic areas participated in focus group discussions across Lebanon. Participants discussed knowledge and awareness towards preventive care as well as their practices in primary settings across the lifecycle. They discussed barriers and provided recommendations to enhancing the utilization of preventive care in Lebanon.

In general, all participants showed limited knowledge and awareness when discussing the availability of preventive services and showed tendency to seek more primarily curative services as compared to preventive services. This was generally evident as discussed across the entire lifespan. This also goes in line with the results of another study that showed the underuse of preventive service in Lebanon and the region [19]. This was also evident in another study conducted in Lebanon that showed that individuals in Lebanon demonstrate curative healthcare seeking behaviors, sought as late as possible while preventive care are down prioritized as a result to the multifaceted crisis in Lebanon [6]. Even when discussing seeking curative services, participants reported seeking healthcare services depending on several factors including the urgency of the symptoms, age, location, and cost, which goes in-line with other studies that showed that screenings are done only when symptoms are present [6,20,21].

Interestingly, our study showed that females demonstrated a better knowledge and awareness to preventive services when compared to males. These differences in preventive healthcare seeking knowledge and behaviors were also evident in the literature [22]. Females exhibited a more positive attitude towards preventive care and were more proactive when it comes to their health, even when seeking curative care and even if not always actively seeking required preventive services. This might be attributed to the fact that females in general are more exposed to healthcare facilities as they generally present more to the centers and are responsible for the health of the children, and as such receive more healthcare messages. Males, on the other hand, showed a less proactive attitude when it comes to their health, and reported focusing more on meeting the demands of their family, whether daily needs of housing and food, or healthcare needs. This might also be attributed to discuss cultural issues where males do not admit to sickness, even in cases of acute illnesses, and to their tight schedules and worry of cost. Also, a minority of males showed a negative attitude towards preventive care and reported perceiving them as unnecessary, while others reported feeling of gratitude after receiving preventive services.

Furthermore, beneficiaries from supported PHCCs showed more awareness and utilization of preventive services as compared to beneficiaries from unsupported PHCCs. This can be attributed to the fact that supported PHCCs conduct awareness activities and offer integrated subsidized preventive services.

Additionally, when it comes to nationality, Lebanese in general showed a more proactive approach and a more positive attitude to preventive care when compared to Syrians. Namely, Lebanese non-beneficiaries were the highest utilizers of preventive care in our study, and this was attributed to their access to insurance schemes and private physicians, that, to their experiences, offer a more comprehensive consultations and encourages patients to utilize preventive services. This goes in-line to studies that emphasize on the importance of physician recommendation and

advise to seeking preventive care [23]. Also, Syrians in our study discussed more misconceptions when it comes to preventive care, sharing conspiracy theories towards healthcare workers conducting preventive healthcare services. This was mostly evident during critical periods, namely during pregnancy where a Syrian female believed that preventive services during her pregnancy caused her to lose the baby. This can be attributed to their perceived discrimination, previous experiences, and the cultural sensitivity between the Syrian and the host Lebanese communities.

Similarly, nationality differences where mostly evident during the preconception period, family planning and pregnancy. During these periods, Lebanese showed more positive attitudes and higher preventive practices strict adherence to antenatal visits, coupled with an enhanced awareness when compared to Syrians. Factors related to these variations where mainly cultural and religious believes. This finding goes in-line with another study in Lebanon that showed that Syrians lack maternal knowledge and have low antenatal visits, lower than their Lebanese counterparts, even when their services are subsidized [24]. It also showed that even when pregnancies are unwanted and family planning services are available and accessible, Syrians do not utilize these services and revert to natural contraception and informal information sources [24]. This was evident among our participants as they reported seeking information on this topic from information sources, being family and neighbors, more frequently as compared to seeking professional healthcare advise and services. This was also showed to be relevant in early periods of life, in Lebanon, namely during infancy [25].

As for the childhood period, parents and caregivers, of all nationalities and genders, showed positive attitudes towards immunization as an essential preventive service actively sought in PHCCs by beneficiaries, in the private sector by Lebanese non-beneficiaries, and in camp clinics by Syrian non-beneficiaries. However, it was the only reported preventive services. There was a significant lack of knowledge and awareness to other preventive services critical across childhood. Only minority discussed these services and reported benefitting from them. Giving the high importance of these services and their implications later in life, more attention should be given in enhancing the knowledge of caregivers towards these services and in offering them more prominently in PHCCs. Even when discussing immunization, its importance and related practices appear to diminish as the child grows. Similarly, with an increase in the number of family members, less attention is given to older children while focusing more on younger ones, which goes in line with other studies [26].

Furthermore, the lowest level of knowledge and awareness was prevalent among all participants during the adolescent period. None reported seeking preventive services or demonstrated any knowledge of preventive services available during this stage. Parents and caregivers primarily discussed challenges encountered when adolescents require acute care, and as a result, they tended to overlook preventive services, anticipating greater challenges. They also showed no tendency in offering their adolescents confidentiality and autonomy when seeking services, whether preventive or curative services. This was evident in other studies that showed minimal autonomy to adolescents, including married and pregnant ones [27]. Studies in Lebanon looking into the practices of adolescents showed that adolescents seek informal care and seek information from informal resources [28] and a negative perception towards PHCCs, the quality of care and confidentiality concerns [28-30], which was also reported in our study. The perceptions of adolescents should be further explored, and greater attention should be devoted to this time in future efforts.

Finally, during adulthood, participants emphasized preventive services included in national campaigns, such as breast cancer screening or cervical cancer screenings, which were particularly prominent among females. This heightened focus can be attributed to the additional attention provided to these conditions nationally and their availability and accessibility during campaigns. Regarding preventive services related to non-communicable diseases, the primary barrier to seeking these or to other preventive services for other conditions, such as cancer, was cost, followed by the fear of discovering unwanted conditions. Fear of the outcome was also a factor affecting preventive care [23]. Overall, there was an evident lack of knowledge and awareness towards available preventive care, which as evident as well in other studies conducted in Lebanon [30], with the available knowledge limited to lifestyle prevention behaviors [20].

Recommendations to Enhance Preventive Services

Participants suggested recommendations to enhance preventive services in PHCCs. The recommendations primarily revolved around improving knowledge and awareness regarding preventive healthcare components, as both non-beneficiaries and beneficiaries exhibited a lack of awareness concerning these services. They recommended enhancing the awareness of the preventive services offered within PHCCs and emphasize their importance and benefits. This is especially crucial for non-beneficiaries who may be unaware of these services. Additionally, participants recommended launching awareness campaigns focusing on primary care and the Primary Healthcare Network, being the main provider of affordable preventive services. Furthermore, they recommended strengthening the integration of preventive services within PHCCs to make them more accessible and prominent, and to integrate them as a main component in campaigns or outreach projects being implemented within the communities. Finally, participants recommended offering

preventive services either for free or at a very low cost in PHCCs, as the cost was the main reported barrier to seeking preventive services. Participants also notably emphasized the importance of addressing adolescents and recommended that PHCCs conduct awareness sessions in an engaging and educational format. They also suggested equipping healthcare providers with effective communication skills for interacting with adolescents.

Overall, these recommendations aim to improve awareness and access to preventive healthcare services within PHCCs for both beneficiaries and non-beneficiaries.

Strengths & Limitations

To our knowledge, this study is the first study done in Lebanon that looks qualitatively into preventive healthcare seeking behaviors among individuals residing in Lebanon. However, due to its qualitative nature, this study faces inherent limitations. Although facilitators-maintained objectivity and encouraged the participation of all individuals, it's important to acknowledge that the study's outcomes relied on self-reported knowledge and attitudes from participants, potentially introducing bias due to social desirability. Additionally, our implementation research acknowledges potential biases in participant selection. By targeting non-beneficiaries through community health volunteers in the catchment area of supported PHCCs, there's a possibility of overlooking non-beneficiaries residing in the catchment areas of non-supported PHCCs, thereby introducing a distinct contextual factor. Moreover, declines in participation, especially among individuals with specific legal residence statuses in Lebanon, pose a limitation, potentially leading to inadequate representation of this population in the study. Furthermore, the study observed a lower participation rate among nationalities other than Lebanese and Syrians, potentially overlooking insights into populations benefiting from primary healthcare services in Lebanon. Although the study covered all governorates in Lebanon, selecting only two PHCCs per governorate may have overlooked certain contextual factors relevant to districts not included in the study, particularly in governorates with large geographical areas.

Conclusion

This study explored knowledge and practices towards preventive care across the lifecycle of individual residing in Lebanon. Even when having a general positive attitude towards preventive services, there is a significant lack of knowledge and awareness of available preventive services during pregnancy, postnatal, childhood adolescents and adulthood. When it comes to practices, all participants seek primarily curative services, and to a lesser extent preventive service, mainly when integrated and offered free of charge. Main barriers are cost and fear of the outcome of the preventive services. Significant variation in knowledge and practices remains evident across genders, nationality, and supporting status of PHCC. It is integral to enhance awareness efforts targeting the communities, with specific key messages tailored to different genders, ages, and nationalities. Offering preventive services at reduced costs and integrating them in routine PHCC services is recommended to enhance utilization of preventive services.

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Disclosures

Authors' Contributions

All the authors contributed to the study design, data collection, analysis and write up of the manuscript.

Non-Competing Interests

The authors declare no financial or non-financial interests that could be perceived as influencing the research, analysis, or interpretation of the presented work. This includes, but is not limited to, any commercial, personal, or academic affiliations that might pose a conflict of interest in connection with the submitted manuscript. The research is conducted with integrity and objectivity, solely for the purpose of contributing to scientific knowledge and public discourse.

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