Adolescent access to health services in fragile and conflict-affected contexts: the case of the Gaza Strip

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Abstract

Background: Enjoyment of physical and mental health is not only recognized as a human right but also as an integral part of development, as reflected in Sustainable Development Goal (SDG) 3 – to ensure healthy lives and promote well-being for all at all ages. The rapid physical, psychosocial and behavioural changes that take place during adolescence have a strong influence on the rest of a person's life course, so investments in adolescent health services constitute a unique opportunity to reap lifelong and intergenerational dividends. Yet the evidence base on adolescents’ access to health services, particularly in conflict-affected contexts, remains thin. This article explores adolescents’ access to health services in the Gaza Strip, and their experiences and perceptions of those services.

Methods: The article draws on mixed-methods research in the Gaza Strip in 2016 and 2017 involving 240 adolescents and 65 service providers, combining a QuickTapSurvey™, key informant interviews, peer-to-peer research and individual in-depth interviews.

Results: The findings underscore that gender norms—especially those pertaining to adolescent girls’ sexual purity—shape adolescent health in multiple ways. Girls face increasing restrictions on their mobility and social interactions, leaving them with limited opportunities for leisure or exercise, socializing with peers or seeking health (including mental health) services. Adolescent boys in Gaza do not face the same restrictions, but given the multiple political, economic and familial stressors, they are at high risk of substance abuse and involvement in peer violence. Moreover, our findings suggest that a range of socioeconomic, cultural and structural barriers prevent adolescents in Gaza from accessing quality and appropriate health care. Study participants cited the main challenges as an absence of preventive adolescent health initiatives and limited information on sexual and reproductive health, as well as drug shortages, high treatment costs, and negative interactions with service providers.

Conclusions: The article highlights the importance of (1) designing and implementing conflict-sensitive and age- and gender-appropriate adolescent services and information; (2) promoting preventive services targeted at adolescents; and (3) improving service provider awareness of adolescents’ specific health needs in all contexts.

Background

Enjoyment of the highest attainable standard of physical and mental health is recognized as a human right [1] and as an integral part of development, as reflected in Sustainable Development Goal (SDG) 3, which aims to ensure healthy lives and promote well-being for all at all ages. Given that the rapid physical, psychosocial and behavioral changes that take place during adolescence influence the rest of a person's life course [2], investments in adolescent health constitute a unique opportunity for a triple dividend of health benefits—during adolescence, during adulthood, and for subsequent generations [3, 4]. However, due to the protracted nature of conflict and refugee crises, millions of young people experience adolescence in politically turbulent contexts, with limited access to key services. Research on
the health status of adolescent girls and boys in conflict-affected contexts, and their experiences and perceptions of health services, is particularly limited.

This article seeks to contribute to the evidence base by exploring the health vulnerabilities facing adolescent girls and boys drawing on mixed-methods research undertaken in the Gaza Strip in 2016 and 2017. It focuses on three areas: (1) the extent to which the health and health care-seeking experiences of adolescents are shaped by gender relations and norms; (2) the types of gender- and age-friendly health services and information available to adolescents and their families; and (3) adolescents’ perceptions of the quality of health services. The article begins with a brief overview of the evidence on age- and gender-responsive health services in fragile and conflict-affected contexts, and an overview of the Gazan context. It then describes the research methods used, before presenting the results of the research, focusing on the age-, gender- and context-specific dimensions of adolescents’ health experiences and service uptake. The concluding section discusses implications of the research findings for policy and programming in fragile and conflict-affected contexts.

Adolescent-friendly health services

The World Health Organization's adolescent-friendly health services framework [5] highlights the importance of providing health services that meet minimum quality standards, tackle adolescents’ heterogenous health vulnerabilities, are non-judgmental and accessible, and include adolescent perspectives in service planning, delivery and evaluation. Hawke et al. [6], drawing on findings from a systematic review, underscore that in the case of mental health, adolescent-friendly services need to be integrated, inclusive, confidential and safe. They should include age-appropriate information materials and communication and counselling skills, and have ‘a core value of youth voice’ (1). As Jennings et al. point out [7], however, the evidence base on adolescent health, and especially adolescent sexual and reproductive health, is a neglected area in humanitarian settings, and one that requires urgent attention. Their findings highlight the dearth of age- and gender-disaggregated data on health service provision, uptake and outcomes.

The Gazan context

The Gaza Strip offers an important lens through which to explore adolescent access to health services, given that it is one of the world’s most protracted conflict contexts. The key socioeconomic and environmental determinants of health for the Gaza population have been negatively affected by the ongoing conflict, involving 12 years of siege and economic collapse, which has increased health-related vulnerabilities, particularly among women and children [8]. However, compared to other countries at a similar level of economic development, the Palestinian population’s overall health outcomes are relatively good, partly due to strong performance of basic public health and primary health care functions [9]. Gaza performs better than many countries in the Middle East region on key indicators: the infant mortality rate is low (at around 22 per 1,000 live births) and immunization coverage is at 95% for most vaccines [10]. There is near-universal coverage of antenatal care, all Gazan women deliver in health facilities, and there has been a noticeable reduction in the fertility rate [11]. Moreover, health insurance coverage is
widespread (more than 90% of households). This said, insurance coverage does not meet people's needs; few medicines are covered by insurance (if available at all), and there are limited specialist services and long waiting lists for surgeries [12]. While people are ordinarily able to access basic health services, access becomes very challenging during renewed outbreaks of conflict [13], and access to advanced services outside Gaza (such as oncology, radiotherapy, advanced cardiac and neurosurgery) remains very limited [12].

Adolescents (aged 10–19 years) comprise 22% of Gaza's population. While school attendance is relatively high (98% for basic education and 80% for secondary education) [14], adolescent girls and boys have limited access to higher education and employment opportunities due to the conflict (an estimated 60% of adolescents in Gaza are officially unemployed) [15]. Girls from mid-adolescence onwards face a high risk of child marriage and early childbearing (28.6% of Gazan women of reproductive age were first married before 18 years) [16].

There is a dearth of information about the specific health status of adolescents as a distinct social group in Gaza, mainly because issues around adolescent health are usually subsumed within children's or young people's health. The leading causes of death in Gaza are somewhat different for adolescents compared with the general population – namely, heart disease resulting from congenital anomalies and other medical conditions, accidents, congenital anomalies (other than heart disease), malnutrition, and infectious diseases [17]. According to a 2016 study by the United Nations Population Fund (UNFPA), 16% of youth had a health problem in the preceding two weeks, while 3% had at least one chronic disease (including disability), with higher rates among males (4.9%) compared to females (2.3%). The youth survey by the Palestinian Central Bureau of Statistics (PCBS) found that 85.9% of females and 90% of males aged 15–29 believed themselves to be in either excellent or very good health [15]; the remainder judged their health status as average or poor.

In terms of sexual and reproductive health, the most recent PCBS survey found that of married girls aged 15–19, 84% were not using contraception, compared to 62% of married women aged 20–24 [15]. In Gaza, family planning is usually initiated late, with the first contraceptive use (ever) tending to begin only after the fourth or fifth child and after having at least one boy, reflecting a culture of son preference [10]. Gaps in family planning services include limited access to information on family planning methods and weak counselling, which affect service uptake. Nearly 30% of girls in Gaza are pregnant before the age of 18 and about half become mothers before the age of 20 [18]. Early marriage endangers adolescent girls’ health as it exposes them to early childbearing, while few adolescent mothers are able to follow the recommended intervals of pregnancy spacing given strong family pressures and very limited voice in household and spousal decision-making.

Although education on sexual and reproductive health, including menstruation, has been incorporated into the school curriculum, it is not clear how fully this is implemented [19]. In Gaza, sexual and reproductive health education remains controversial, circumscribed by political, economic, cultural and religious factors. Social taboos are major obstacles to informed discussions, particularly in relation to
young people [19]. Many adolescent girls reported feeling unprepared for puberty and the physical and emotional changes it brings, with 28% stating that this phase had caused them problems [20]. For instance, 22% had no idea about menstruation; 40% were afraid (and 19% embarrassed) when they first experienced a period; and 43% taught themselves how to clean their bodies during a period.

Of those aged 15–17, 40% had not heard about sexually transmitted illnesses (STIs) (other than HIV) and 20% had not heard of HIV [18]. While STI prevalence remains relatively low in Gaza, the lack of sexual and reproductive health education is likely to lead to increases in future. It is therefore critical to take preventive action, ensuring that integrated health services include sexual and reproductive health and non-discriminatory counselling. Indeed, evidence suggests that gendered social norms, which hold that girls’ virginity is central to family honor, largely preclude girls’ and young women’s access to care services other than those related to maternity [18].

Existing literature suggests that adolescents’ satisfaction levels with health care service providers is low. Several studies have highlighted that providers’ attitudes are problematic and act as a constraint to adolescents accessing services [13, 21], and that adolescents are least satisfied with interaction, counselling and communication [8]. Because Gaza’s health care system is curative rather than preventive, and staff are mostly disease-oriented [8], adolescents usually only go to a clinic when they have acute manifestations such as high fever or infection; otherwise, they use home remedies such as drinking herbs or eating garlic. Reports indicate that more and more people now rely on home remedies and cultural rituals, due to economic hardship and lack of trust in health care providers [8].

**Research Methods**

Given the scarcity of research on adolescence in Gaza, this article draws on mixed-methods data incorporating secondary analysis of available databases, a service-mapping exercise with 70 service providers (based on key informant interviews) and 107 adolescents (using an interactive tablet-based QuickTapSurvey™ module), and a range of qualitative research tools with adolescents, their peers and families. The latter included 10 focus group discussions (FGDs) using vignettes, object-based interviews and social network mapping and 35 in-depth interviews (IDIs) [22] (see also Table 1). The research team used a purposive sampling technique to ensure a good mix of participants from different socioeconomic backgrounds, including school dropouts, child brides, adolescents with disabilities, and those involved in child labor.

The research also drew on findings from a participatory action research project in Khanyounis, Gaza, in 2016, undertaken by Gender and Adolescence: Global Evidence (GAGE). This involved 35 adolescents aged 15–19, who met weekly (for 8 weeks) with GAGE facilitators to undertake a wide range of research activities, including peer-to-peer interviews and participatory photography and videography.

Following transcription and translation, all interview transcripts were thematically coded using MAXQDA software, and analyzed. To facilitate the coding process, a two-day in-depth debriefing meeting was held
to discuss emerging findings and key themes. Findings were first aggregated by instrument and then collectively across all instruments.

**Study sites**

**Research ethics**

The research team adhered to stringent ethical measures to ensure the protection of adolescents and their families, as set out under the GAGE Institutional Ethics approval document and GAGE child protection guidelines. They also followed the Modified International Code of Ethics Principles (1975) known as the Declaration of Helsinki and permission was sought from, and given by, Gaza's Helsinki Committee. Participant anonymity and confidentiality were ensured and data were securely stored. Informed consent was obtained from parents and adolescents aged 18 or 19 years, and informed assent from adolescents aged 17 and under, prior to commencing data collection.

**Results And Discussion**

We now turn to discuss the key findings, beginning with a review of the gendered health vulnerabilities facing adolescent girls and boys, then moving on to discuss their experiences of service provision and uptake.

**Health awareness and gender norms**

Our findings indicate that adolescents in Gaza have limited access to information about health or healthy lifestyles. For boys, their main source of knowledge was friends (50%), followed by books (31%) and teachers (14%). None of the participants mentioned health care providers as a source of information [10]. School health programs do exist, but these are limited in scope and focus on children younger than 10 years. In many schools, sports classes for girls are either cancelled or replaced with regular classes; girls’ involvement is often not encouraged, with some girls reportedly even asked to clean classrooms instead of doing sporting activities. As one girl explained: ‘During sport class, we do not play or practice. Instead, we are handed sweepers to clean the place’ (FGD, older girls, Shajaia).

Our findings also indicate that gendered social norms play a critical role in hindering girls’ ability to practice a healthy lifestyle. Unlike boys, girls are not allowed to go out to do sports at gyms, and their movement outside the house is sharply constrained and scrutinized. Deeply rooted social norms about protecting family honor are the main driver limiting girls’ movement outside the house. This means that most adolescent girls spend much of their time at home watching TV, vicariously observing lives they are prohibited from living.
In terms of sexual and reproductive health, our findings underscore that in Gaza, menstruation and puberty issues are not openly discussed due to cultural taboos. Most girls said they only approached their mothers or older sisters upon reaching menarche. Many girls reported feeling fearful and shocked by it, though the situation was harder for younger girls (aged 10 or 11) and those who had never heard about periods either at home or at school. One older girl in an FGD in Jabalia noted:

‘I was 11 years old when I had my first period, I was so scared. It happened that I was doing exams. I rushed to my mother and sisters. I was scared and young. I cried for a week. I didn't know that there is something called a period, and that it happens every month.’

Given the prevailing stigma around menstruation, family members are either not aware or not supportive of girls during menstruation. While boys did not mention anything about girls’ menstruation, girls themselves mostly reported experiencing embarrassing comments or teasing from family members, as the following quotes illustrate:

‘In Ramadan [the fasting month in Islam], when I have my period, she [younger sister] tells everybody at home and they laugh at me because I can't fast like them.’ (FGD, older girls, Shajaia)

‘If I have my period, my husband’s family gets angry and says, “She has her period, that means she is not pregnant!”’ (FGD, older girls, Jabalia)

Schools (teachers or counsellors) start introducing information about menses for seventh grade students (aged 13 years) but according to participants, the knowledge they give is not sufficient. Some teachers refused to talk about menses with their students, believing that mothers should discuss the topic with their daughters at home instead. One girl explained how:

‘Our teacher told us to go home and ask our mothers to explain this lesson for us … The teacher said “let your family explain this disgusting topic!”’ (FGD, older girls, Shajaia)

Another participant reported:

‘There are some teachers who would be shy and don’t talk about such topics [puberty and menses] and they would skip the pages that have this in the notebook, asking us to read it alone.’

Similarly, in Jabalia, teachers either discussed the topic superficially or provided wrong information, as one girl reported:

‘In that lesson, our teacher explained that girls will have their period one day, and that means they will bleed for a week or so. This blood is poisonous and it causes pain. That’s all she said.’

The girl continued: ‘We were young, so we needed more information’ (FGD, older girls, Jabalia).
Another highly gendered aspect of adolescent health vulnerabilities is substance abuse. Many young people in Gaza—especially adolescent males—are addicted to Tramadol, an opioid painkiller, which has also been reported to affect 50%–80% of the adult population [25]. Our findings suggest that substance abuse is widespread among adolescents, especially boys/young men, reflecting the many stressors they face, including unemployment and anxiety. One boy commented:

‘Tramadol use is common among youth. The worry comes not only from using it, but many are involved in dealing, because of the unemployment.’ (FGD, older boys, Jabalia)

Many participants who were interviewed individually admitted having tried Tramadol or knowing people who take it. One 14-year-old noted:

‘The day before yesterday, I was at a wedding party for my friend, and someone came and he had Tramadol, he put it in juice and distributes to all.’ (IDI, orphaned boy, Shajaia)

Girls reported knowing people who take drugs, but did not admit to doing so themselves. Girls also reported feeling more insecure moving around in the community because of increasing substance abuse. As one girl explained:

‘Males are becoming more dangerous in Gaza. Safety is less in Gaza with the many male Tramadol users ... They turn violent and tend to steal to secure the money needed to buy the stuff. Our families prevent us going outside in order to protect us from those bad people and thieves.’ (FGD, older girls, Jabalia)

A 19-year-old young woman elaborated:

‘I heard many stories of females using Tramadol, my cousin and two girls at school [grade 9] are using it. They use it in the school toilets ... and one day, the cleaner caught them and the school informed their parents.’ (IDI, girl who married early but is separated, Jabalia)

**Age- and gender-responsive gaps in service provision**

Our research highlights the range of barriers that prevent vulnerable adolescents accessing health care services in Gaza, an in particular the dearth of age-tailored information and services that respond to adolescents’ changing bodies and needs. Adolescents who did not seek treatment cited the following reasons: not knowing where to go (11%); not being able to get permission (17%); not being able to get money (36%); not being willing to go alone (particularly girls) (39%); and a lack of female health workers (32%). By contrast, and most likely reflecting the stresses induced by the context of a protracted conflict, girls are more likely to seek treatment for psychosocial problems. Nearly half of adolescents in our survey (53%) reported that adolescents go to see a counsellor or therapist when they are worried or sad. Of those, 16.3% indicated that they had already approached a counsellor or therapist about how they are feeling (23% boys and 9% girls).
In terms of the specific barriers to service uptake, a range of interconnected challenges emerged. As boys in an FGD in Shajaia emphasized:

‘Medicines are not available. Doctors don’t seem to be interested in treating us. They prescribe the medicines so quickly without diagnosing us well. The clinic isn’t clean either.’

They also pointed out that overcrowding and uncleanliness of public health services as well as inadequate privacy act as further barriers to approaching these services. When asked whether young people in their community ever speak to doctors or nurses about concerns they may have about their growing bodies and puberty, only 22% said yes, while less than 5% reported having already spoken to a health care provider about such concerns. This reflects inadequate access to and utilization of adolescent-related services and information.

Adolescents also reported that medical staff at public services are often insensitive to their needs:

‘In Al-Shifa hospital, for example, the treatment is not good unless you know someone there.’

‘As for the cleanliness of places, bathrooms there are super dirty.’ (FGD, older girls, Shajaia)

Another girl explained that:

‘I was so afraid when I went to the dentist in the UNRWA [United Nations Relief and Works Agency for Palestine Refugees in the Near East] clinic. The dentist shouted at me and said “if you don’t want to be cured, go home!” Then I went home without getting my teeth checked.’ (FGD, younger girls, Jabalia)

A 17-year-old boy noted that:

‘The doctors are not good. I once went to a clinic and I was complaining of a headache and the doctor prescribed me a brace for my leg!!’ (FGD, older boys, Jabalia)

Adolescents’ access to sexual and reproductive health care and information appears to be particularly limited. Most boys defined puberty simply as growing up, or as one boy noted: ‘It means I can marry’ (IDI, 16-year-old boy, Shajaia). Other signs of puberty mentioned by boys include body hair, facial hair, their voice deepening, and feeling more like an adult. Some boys expressed anxiety about going through puberty and the prospect of the ‘scary adulthood’ stage. In some instances, these feelings reflect young men’s concerns over their sexual ability or ability to father children:

‘I am afraid of being infertile and not being able to have children. I heard there are men who cannot have children. I’m afraid to be one of them.’ (IDI, 16-year-old boy, Shajaia)

Among girls, talking about sexuality is a taboo; hence sufficient information is rarely communicated and, in many situations, avoided. It was very rare for unmarried girls to mention that they had access to such information. This is compounded by the fact that parents often do not allow unmarried girls to visit a
gynecologist because they are concerned that any invasive procedure might break the hymen. One girl explained:

‘Fathers will prevent girls from visiting a doctor no matter how severe the condition because they believe there is a chance that her virginity will be ruined, and as a result she will not get married.’ (FGD, older girls, Shajaia)

Even for those girls who were about to become sexually active (because they were about to marry), information was minimal. Due to their limited access to appropriate information, even on maternity-related matters, adolescent mothers appear to have insufficient knowledge/awareness of important warning signs related to sexual and reproductive health. Our discussions with adolescents confirmed that they know only a little about these topics, rendering them completely unprepared for the changes brought by puberty, marriage and motherhood. Poor communication between adolescent mothers and service providers was also evident. As an 18-year-old married girl with two infants from Khanyounis reported:

‘The health personnel at the hospital were not supportive ... I had no information. I am a child. I don't know about these things.’

In sum, adolescents’ level of trust in and satisfaction with health care services is low. Some participants described their first day of marriage as the worst experience of their life, as they were completely unaware that they would be expected to have sexual intercourse with their husband. As one girl reported:

‘I had no idea what marriage was. I thought that marriage is all about supporting my husband. I had no idea that it included a sexual relationship. The biggest shock I had about getting married was at the night of my wedding, I ran away from home and went back to my family. I was terrified. My husband came to my family’s home and he told them to leave me as I wish, I returned to my husband after a month, I was afraid.’ (IDI, 16-year-old girl, Shajaia)

A 14-year-old married girl from Khanyounis similarly noted:

‘Early marriage is a disaster. For a 14-year-old girl it is suffocation ... No one should be terrified like I was.’

Unsurprisingly, females rarely talk about their sexual needs, as one girl noted:

‘I do love him but I don’t feel pleased like he may do, we never talked about such things.’ (IDI, 16-year-old girl, married early, Shajaia)

Moreover, issues around reproductive health create considerable stress for girls, who rarely have a say about the timing or spacing of pregnancies, how many children they have, or what type of family planning method they use. To a large extent, social norms dictate that it is not acceptable for a woman to leave an infertile husband, although it is acceptable for a man to leave an infertile wife or marry another woman. As one girl explained:
‘Husbands divorce their infertile wives while wives stay with them forever even if they are infertile. These women endure all difficulties and remain patient.’ (FGD, older girls, Jabalia)

Adolescent girls who married early face particular challenges with health care services. As noted earlier, though access to antenatal care is nearly universal, the quality of services is suboptimal. The gender of the health care provider can be a barrier, with most participants preferring female health care staff given the very personal nature of problems. As one participant explained:

‘I feel shy to tell a male physician that I have a severe inflammation.’ (FGD, older females, Jabalia)

‘There are no clinics to support girls at our age ... staff in clinics do not understand our needs.’ (FGD, older girls, Shajaia)

As a 17-year-old married girl from Khanyounis explained:

‘I was afraid when the baby was moving ... because I had never been told what to expect during pregnancy, even by doctors at the UNRWA clinic.’

Other participants considered service provision by male doctors or nurses problematic, especially for unmarried girls. Participants reported concerns in prenatal care that included lack of cleanliness and privacy, waiting times and drug shortages. As one older girl commented:

‘When I go to the midwife, I feel like I’m in a shop not in a clinic, because everybody enters and leaves at the same time. There is no respect for appointments.’ (FGD, older girls, Jabalia)

Health service affordability

Despite their families having medical insurance, most study participants cited drug shortages, cost of treatment and availability of laboratory tests as among the main challenges they face when visiting health facilities. Some families borrow or seek help from non-governmental organizations (NGOs) or charitable bodies to pay for medications while others either just skip treatment or use traditional remedies. This is especially true for more costly treatments, as one younger girl explained:

‘I have some problems related to growing normally; and my family can’t afford growth hormone education, which costs around $1,000 monthly. We take financial aid from the Ministry of Social Development and we have to borrow the rest of the money from people.’ (FGD, younger girls, Jabalia)

Some girls also reported that young people try to simply endure sickness until they feel better. One younger boy explained: ‘When I need medicine that I cannot afford, I just sleep it off till I feel better’ (FGD, Shajaia). In the same focus group, another boy noted that, ‘When I need medicine that I cannot afford, I eat garlic.’ Another explained: ‘I do not go anywhere. I drink juice when I am sick.’ And a 16-year-old adolescent mother noted:
Once I had a stomach ache and I told my mother about it. She advised me that I have to drink boiled parsley and eat watermelon.’ (IDI, Jabalia)

Some girls believe that poor families would prefer to spend money on their sons because according to gender social norms and gendered opportunities for education and employment it is they who are likely to financially support the family in future, so investment in girls’ health is therefore a lower priority. However, adolescents generally reported that families decided on health expenditure based on the severity of the child’s illness, regardless of gender. One girl commented:

‘Females are usually denied health services because they don’t work, while males work and earn money.’ (FGD, older girls, Shajaia)

Boys mentioned that younger children are prioritized, followed by girls:

‘Younger children go to the health facilities more because they get sick more than older ones and girls also go more.’ (FGD, younger boys, Shajaia)

Disparities were also highlighted by older girls, who thought that their parents cared more about their younger sisters’ health, as child illnesses are perceived as more dangerous.

Conclusions

Overall, our findings underscore the complex and interlinked challenges facing adolescents in realizing their well-being and health needs in conflict-affected contexts, and the critical role that context-specific gendered norms and practices play in shaping adolescents’ physical and mental well-being. Our study confirms that although adolescents’ basic health outcomes in Gaza are relatively good, the most pressing issues they face are related to sexual and reproductive health and risky behaviors such as smoking and substance abuse, in addition to psychosocial challenges.

Our findings also show that health services are rarely tailored to the specific needs of adolescent girls and boys of different ages, which has a negative impact on service uptake. For instance, other than seeking maternity-related care or seeking treatment for acute illnesses, adolescents’ utilization of services is very limited due to lack of age-appropriate and gender-sensitive information and services. Even services that do not require intensive resources like counselling and health education are seldom provided. It is therefore imperative to bridge the gaps in quality of services identified both in our research and the broader literature by introducing a package of health services that are sensitive to the needs of different groups of adolescents.

The basic package of health services in Gaza is excessively curative and does not include preventive services for adolescents, tailored to their distinct needs, especially around information and awareness. Stakeholders should therefore focus on health promotion and policy formulation to address the key health issues, including sexual and reproductive health, facing adolescent girls and boys.
The provision of sexual and reproductive health information and services, particularly around menstruation, has many gaps that should be urgently addressed to reduce girls’ anxieties and discomfort around these issues. Stakeholders should provide more adolescent-centered services, promote positive interactions between staff and service users, create a more adolescent-friendly environment at health facilities, and provide sufficient resources (especially drugs and educational materials). Health care providers should develop more positive and compassionate attitudes towards adolescents, focusing on caring rather than simply curing.

As many of the challenges facing adolescents are multi-faceted, it is essential to increase coordination among providers and sectors to ensure the provision of integrated health services that see health as a social rather than principally medical concept. For instance, there is a need for multi-sectoral policies and programs to promote healthy lifestyles, encourage exercise, and control obesity, drug abuse and smoking. Using mass media and social media, as well as engaging community and religious leaders, school teachers and other influencers, could contribute to changing norms and lifestyles. Collaborative efforts should aim to break through some of the taboos and stigma around discussing sexual and reproductive health issues, including menstruation. More efforts are also needed to collect data and evidence about the health needs of different groups of vulnerable adolescents, especially girls and boys from the most disadvantaged groups and girls who marry early.

In protracted humanitarian contexts like in Gaza, the socioeconomic determinants of health are pronounced and young people face compounded health vulnerabilities originating from the ongoing conflict, long-standing poverty, and the limited capacity of the health system to respond to the needs of the population, particularly adolescents. Moreover, our findings underscore that in such contexts the already existing culturally rooted age and gender-based inequalities and discrimination become reinforced, especially for adolescent girls. In conflict-affected settings, the Gaza case highlights that due to ongoing hostilities and lack of adequate resources, the focus of the health system tends to be reactive and concerned with reoccurring emergencies and physical injuries, with little investments in the broader vision needed to realize the SDG 3 commitment to ensure healthy lives and promote well-being for all at all ages. Health policy makers do not enjoy the minimum level of certainty to establish a coherent health system in which polices, regulations, programs and services are consistent and coordinated to address the multi-dimensional needs of adolescents especially girls in an effective way.

By focusing on the health status of adolescent girls and boys in a protracted conflict-affected context, and their experiences and perceptions of health services, this article contributes to the as yet limited international evidence. It provides insights into adolescent health status and experiences in areas characterized by intersecting, long-term compounded vulnerabilities resulting from protracted crisis and political turbulence, economic hardship, restrictive gender and age norms, weak services provision and inadequate governance which combined have exacerbate adolescents’ health vulnerabilities, with girls being more disadvantaged.
Unlike other studies which usually focus on the perspectives of service providers, this article explores the lived experiences of vulnerable adolescents themselves and tells their untold stories which is vital if the 2030 Agenda for Sustainable Development’s call to leave no one behind is to be realized.

**Abbreviations**

| Abbreviation | Description |
|--------------|-------------|
| CFTA         | Culture and Free Thought Association |
| FGDs         | Focus Group Discussions |
| GAGE         | Gender and Adolescence: Global Evidence |
| HIV          | Human Immunodeficiency virus |
| IDIs         | In-depth Interviews |
| NGOs         | Non-governmental Organizations |
| PCBS         | Palestinian Central Bureau of Statistics |
| SDG          | Sustainable Development Goal |
| STIs         | Sexually Transmitted Illnesses |
| UN OCHA      | United Nations Office for the Coordination of Humanitarian Affairs |
| UNFPA        | United Nations Population Fund |
| UNRWA        | United Nations Relief and Works Agency for Palestine Refugees in the Near East |

**Declarations**

**Ethical approval and consent to participate**

The research team adhered to stringent ethical measures to ensure the protection of adolescents and their families, as set out under the GAGE Institutional Ethics approval document and GAGE child protection guidelines. They also followed the Modified International Code of Ethics Principles (1975) known as the Declaration of Helsinki and permission was sought from, and given by, Gaza’s Helsinki Committee. Participant anonymity and confidentiality were ensured and data were securely stored. Informed consent was obtained from parents and adolescents aged 18 or 19 years, and informed assent from adolescents aged 17 and under, prior to commencing data collection.

**Consent for publication**

- Ethical approval was obtained from Helsinki Committee
- Informed consent for participation was obtained.
- Consent for publication was also obtained and available upon request.
- All quotes from adolescents and key informants are anonymized.
Availability of data and materials

The datasets generated and used during the current study are available from the corresponding author on a reasonable request. However, there are policies at the GAGE programme that control data sharing and exchange.

Competing interests

The authors declare that they have no competing interests

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Authors contributions

BH contributed to data collection, analysis and writing the first draft of the article

NJ provided oversight and leadership to the study design, tools development, analysis and finalization of the article

IG contributed to tools development, data management and coordination of the research process

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Tables

Table 1: Overview of research methods used

| Method                                | Total participants                          |
|---------------------------------------|--------------------------------------------|
| Focus group discussion                | 10 groups with 97 participants in total    |
| In-depth interview                    | 35 in-depth interviews with adolescents    |
| Adolescent survey (QuickTapSurvey™)   | 107 survey respondents                     |
| Key informant interview               | 68 key informant interviews                |
| Participatory action research project | 35 participants over a period of 8 weeks    |

Table 2: Demographic characteristics of the adolescent sample
### Demographic characteristics of the adolescents involved in the qualitative sample (N=132)

| Category                        | Percentage |
|---------------------------------|------------|
| Refugees                        | 61%        |
| Out of school                   | 36%        |
| Aged 10–14                      | 39%        |
| Male-headed household           | 72%        |
| Aged 15–19                      | 44%        |
| Having disability               | 17%        |
| > 19 years                      | 17%        |
| Social assistance beneficiary   | 64%        |
| Female                          | 57%        |
| Adolescent services recipient   | 53%        |
| Male                            | 43%        |
| Single                          | 87%        |
| Median age                      | 15 years   |
| Married                         | 10%        |
| Family size 7–9                 | 49%        |
| Divorced                        | 2%         |
| Family size >9                  | 34%        |
| Separated                       | 2%         |
| Family income 501-1000 ILS p/m  | 42%        |
| No children                     | 31%        |
| Family income <500 ILS p/m      | 28%        |
| One child                       | 54%        |
| Family income 1001> ILS p/m     | 30%        |
| Two children                    | 15%        |
| In school                       | 64%        |
| Disability in the family        | 42%        |

### Demographic characteristics of the adolescents who completed a tablet-based QuickTapSurvey (N=107)

| Location           | Percentage |
|--------------------|------------|
| Jabalia camp       | 49         |
| Median age         | 16         |
| Shajaia            | 51         |
| Living in nuclear family | 77%    |
| Female             | 51         |
| Living in extended family | 23%   |
| Male               | 49         |
| In school          | 52         |
| Refugee            | 52         |
| Out of school      | 48         |
| Non-refugee        | 48         |
| Median number of brothers and sister | 6      |