



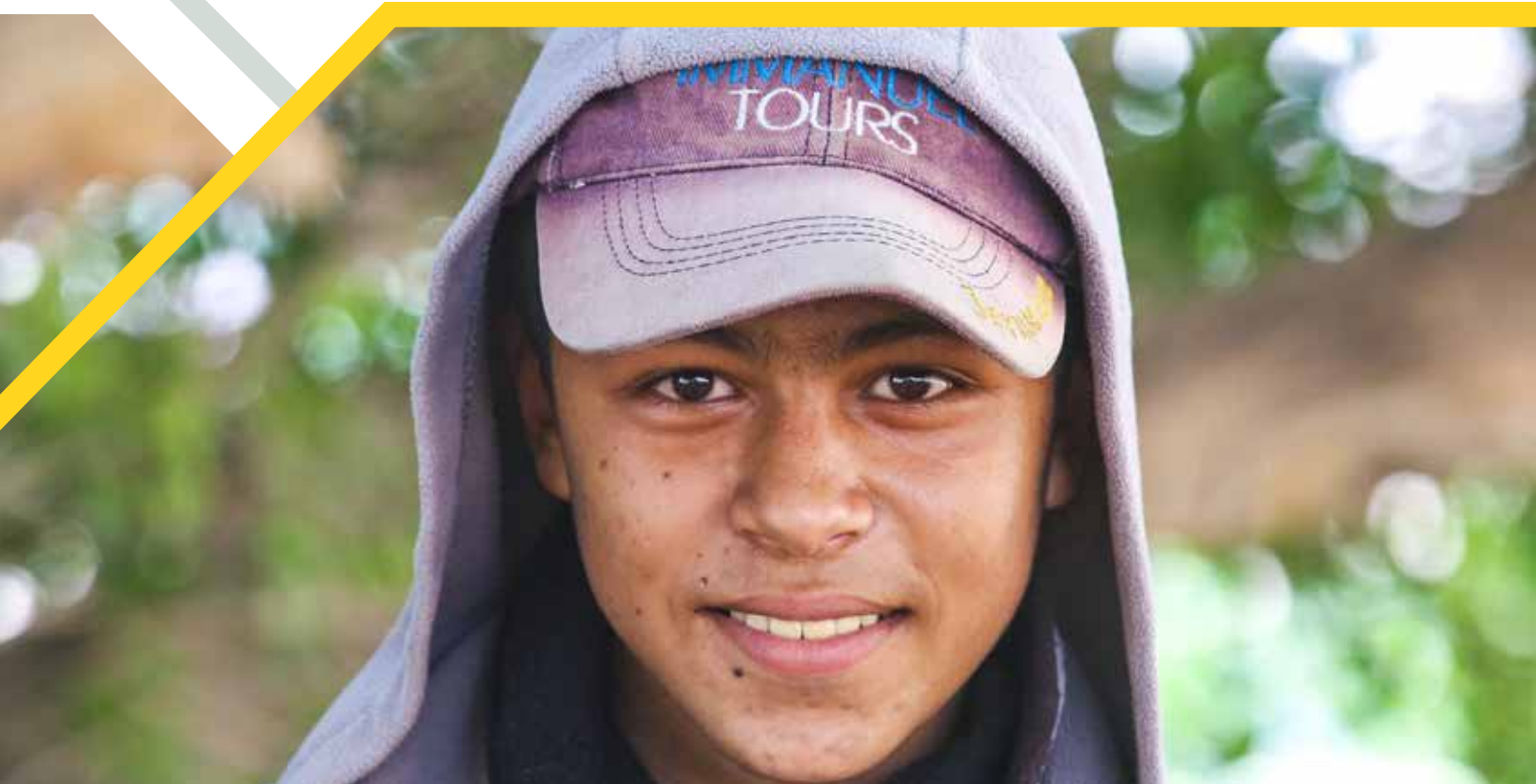
**World Health
Organization**

occupied Palestinian territory



JUZOOR

The impact of COVID-19 on the Psychosocial and Mental Well-being of Palestinian Adolescents



A recent survey shows that the COVID-19 pandemic and continuous lockdowns are having a significant impact on the psychosocial and mental health of Palestinian adolescents

Acknowledgements

This research was made possible through the joint partnership of Juzoor for Health and Social Development and the World Health Organization (WHO), oPt Jerusalem Office and in collaboration with the Swiss Tropical and Public Health Institute, An-Najah National University, and the Palestine Coalition for Adolescent Health.

Dr. Umaiye Khammash, Director of Juzoor, would like to extend his gratitude to the WHO for their support in funding this research. He would like to thank Rajiah Abu Sway, the Mental Health Officer at the WHO for providing the mental health expertise throughout the research. Additionally, he would like to thank Juzoor's Research Advisor and Assistant Professor at An-Najah National University, Dr Hala Allabadi, for taking the lead in conducting this study and writing this report. Dr Umaiye would also like to thank Jennifer Daibes, Policy Director and Rihab Sandouka, Unit Director for their collective efforts and contributions in this publication.

Finally, Dr Umaiye would also like to extend his gratitude to Professor Nicole Probst Hensch, Head of Epidemiology Department at the Swiss and Tropical Public Health Institute, for providing her academic and research expertise throughout the study and Luma Tarazi, Mental Health Advisor at Save the Children and Suhad Masri, Director at Tomorrow's Youth for their technical feedback and support throughout the research.

For correspondence about this report, please contact:

Ms. Rajiah Abu Sway, Mental Health Officer
World Health Organisation, Office for West Bank and Gaza (oPt)
Jerusalem
Office: +972(0) 2-5400595
Mobile: +972(0) 54-7179037
Email: abuswayr@who.int

Dr. Umaiye Khammash, Director
Juzoor for Health and Social Development
Ramallah,
Office: +970(0) 2-414484
Email: info@juzoor.org





Background

The context of COVID-19 and mental health among adolescents in the Occupied Palestinian Territory (oPt)

In response to the ongoing COVID-19 pandemic, countries across the globe have taken containment measures in an effort to control the spread of the virus. Some of these measures have included lockdowns, home confinement, closures of schools and services, physical distancing and suspension of community and recreational activities and programs (1). As some of these measures continue, there has been growing concern about the impact on the psychosocial and mental health of individuals.

Previous research has revealed a wide range of psychological impacts of infectious outbreaks on those who got infected, family members of infected patients, medical staff, and the general public (2). Studies from around the world have shown that most individuals have reported increased psychological distress, and worsened mental health including depression and anxiety as a result of the long-term nature of the COVID-19 pandemic, in particular. Although worsened mental health has been documented across the lifespan, several studies have found young adults are experiencing the greatest deterioration in mental health, poor sleep, and increased fear and stressed levels, especially during the COVID-19 pandemic (3-6).

Following the outbreak and due to the disruptions to everyday life, billions of students around the world have been affected by the largest disruption to education, banned from activities such as attending schools, interacting with extended family and friends, playing outdoors, and participating in leisurely sports all the while maintaining social distancing measures (7). It has been recognized that the psychological impact of COVID-19 on adolescents seems to be far greater than the impact on adults because they are more vulnerable to the negative effects of traumatic and stressful events. This is greatly alarming as the period of adolescence represents a time of social transformation where adolescents are in

need of social interaction with their peers and social stimuli (8). Reduced social interaction, stay-at home restrictions, difficulties in schoolwork, substantial changes to daily routine, fear of becoming sick, and boredom can create dramatic psychological effects on teenagers and adolescents. Similarly, these restrictions ultimately can lead to adolescents feeling socially isolated, lonely and can disrupt their socio-emotional benefits from these experiences (7), also potentially increasing the risk of mental illness in this young generation (6).

Although the number of adolescents infected by COVID-19 is relatively small compared to other age groups, the pandemic is expected to have a tremendous effect on their lives as well their families particularly with the extended conditions of the lockdowns. Unless there are multi-sectoral approaches to implement essential psychosocial and mental health interventions for adolescents during times of crises such as pandemics and other crises, a much higher percentage of adolescents are at risk of long-term physical, socio-emotional, and psychosocial and mental health problems over the entire course of their lives (9).

When the pandemic reached the oPt on March 5th 2020, the mental health status of Palestinians was already compromised because of the political context. Since the beginning of the Arab-Israeli War in 1967, Palestine has been under occupation, drastically impacting the development of the country in all aspects. Palestinians have had their fundamental human rights violated on a daily basis and have lived under occupation in an environment of violence, insecurity, inequality and injustice. Many Palestinians in both the West Bank and the Gaza Strip live in a permanent state of stress and discomfort owing in large part to the Israeli settlements as well as poverty and lack of services and rights (10). The severity of the measures to curb the spread of the virus in the oPt have had serious effects on many families' financial situation, and exacerbated mental health problems due to the ongoing political crisis. In addition, reports indicate a worsening

of the job market because of lockdown, and a rise in unemployment rates (11).

Despite the significant potential impact of pandemic-related restrictions on adolescents, there is a lack of studies, which have assessed the impact of the pandemic's disruption on the daily lives, emotional, psychosocial and mental well-being of adolescents, in particular. Among the studies, which assessed adolescent mental health amidst the COVID-19 pandemic, authors found a significant prevalence of depression and anxiety rates. Other studies have also reported increased feelings of isolation and loneliness. In addition, young people's behavior and lifestyles have also been impacted by COVID-19. For example, one study conducted in oPt in the middle of the lockdown found that adolescents reported increased weight gain, screen time, and decreased physical activity and worse sleep behaviors compared to before the lockdown (12). This available data indicates a significant impact on adolescents' daily lives.

Beyond these studies, it is unknown how the disruption to daily life due to the pandemic, and the impact on adolescents' behavior, their peer relationships, family relationships, feelings of loneliness, learning and education, lifestyle factors are related to mental health. In addition, until now there have been no studies in the oPt to assess the impact of the COVID-19 pandemic on the psychosocial and mental health of adolescents.

It is in this context of the Palestinian double burden of Israeli military occupation and the COVID-19 pandemic and lockdown that this assessment explored the psychosocial and mental health of Palestinian adolescents, under COVID-19 in the hopes of working to address some of the determinants of their well-being. This study survey was undertaken with the aim to fulfill one of the current mandates for adolescent health and rights to assess the impact of COVID-19 on the mental health of adolescents, their lifestyle behaviors, challenges faced and services needed and/or provided. Results are important as they generate evidence to advocate for adolescent

rights, including protection and services for psychosocial and mental health.

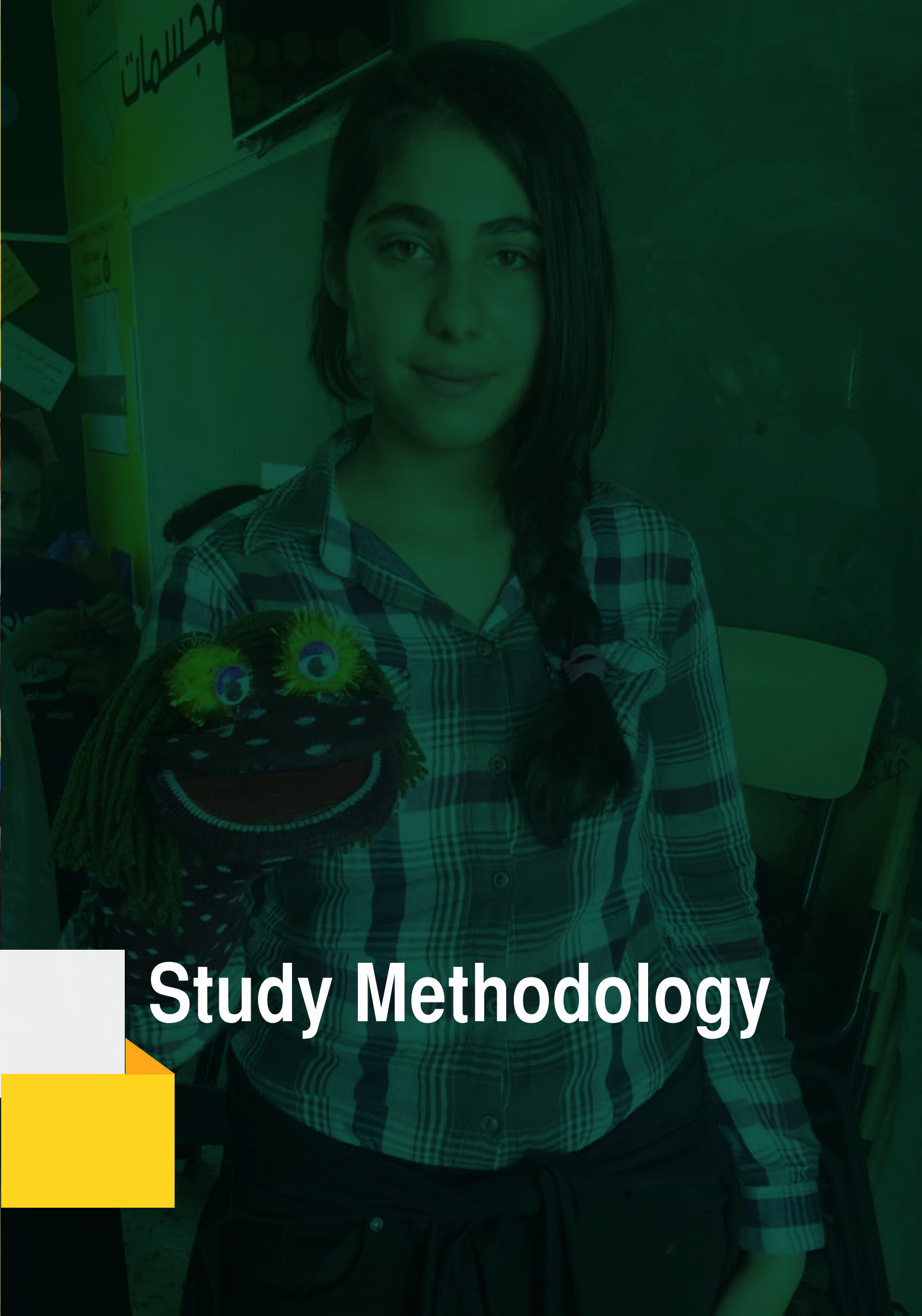
The findings of the assessment contribute to the empowerment of adolescents, particularly those residing in marginalized communities and the most vulnerable in the oPt through protecting their right to live and to provide support through community-based psychosocial/ mental health support services. This assessment and its results are one step toward understanding the needs, gaps and challenges of adolescents during the COVID-19 pandemic in the oPt and set a base for strengthening the mental health services for adolescents. It is imperative that we improve efforts for early recognition of mental health needs among children and adolescents and foster greater awareness of early warning signs. We must disseminate and promote effective and evidence-based practices that treat and prevent psychosocial and mental health problems in children and adolescents. The main goal will be to promote and advocate for adolescent psychosocial and mental health services and interventions to be developed across the oPt.

The overall objective of the current survey was to address this gap and answer calls from across the globe to assess how young people's lives and their psychosocial and mental health has been impacted by the pandemic.

The aims of this assessment were:

1. to assess the overall impact of the COVID-19 lockdown on the psychosocial and mental well-being of adolescents.
2. to assess the relationship between sociodemographic factors, stressors, lifestyle behaviors, and the psychosocial and mental well-being of adolescents during the lockdown.
3. to examine to what extent the pandemic and lockdown has affected lifestyle behaviors, daily routines and emotions of adolescents.
4. to determine if adolescents seek mental/ psychosocial support and help if needed .
5. to assess the impact of the lockdown and pandemic on the quality of education received.





Study Methodology

Recruitment and data collection

This study was conducted on a sample of female and male adolescents residing in the oPt (the West Bank, East Jerusalem and the Gaza Strip). Using non-probability convenience and purposive sampling, a link to an electronic self-administered structured online survey was distributed to networks of Juzoor for Health and Social Development via a range of methods: emails, official network pages, and sponsored social media platforms such as Facebook™, Twitter™ and WhatsApp™. The study was reviewed and approved by the Helsinki Ethics Committee of the Palestinian Health Research Council in the Gaza Strip. Electronic informed consent was obtained from each participating adolescent as well as his/her parent/guardian, after receiving information on the study objectives, confidentiality and its benefits/risks.

Study Measures

The online study survey assessed sociodemographic factors, lifestyle behaviors during COVID-19, COVID-19 related factors, sources of stress, and psychosocial and mental health factors which occurred as a result of the COVID-19 pandemic and lockdown. All questions were structured to be answered directly in comparison to “before” or “during” confinement conditions. The questionnaire was translated from English to Arabic and back-translated from Arabic to English by two bilingual experts.

Socio-demographic factors

Sex, age, social status, education, school grade, mother’s education, father’s education, parents’ occupation status, residence, family’s financial situation, parent’s employment status as a result of the lockdown, and COVID-19 impact on financial situation.

COVID-19 related factors

Participants were asked if they or anyone in their family has been infected with COVID-19, if they or anyone in their family received medical treatment for their infection, if as a result of the pandemic, there has been more tension between them and their parents, and between their parents, if their parents were very strict on them following lockdown restrictions, if their parents allowed them to conduct activities during the lockdown, and their social connectivity with friends and family during the lockdown.

Lifestyle factors

Participants, were asked what type of leisure activities they did during the lockdown; their motivation to do activities; Increase/decrease in weight, increase/decrease in frequency of food consumption, and increase/decrease in dietary intake; increase/decrease in physical activity; Increase/decrease in screen time watching television and using computers/tablets/mobiles; hours spent on the television per day; hours spent on computers/tablet/mobiles per day; hours spent on the screen for school-related functions, hours spent playing video games, hours spent reading books not for school; hours of sleep per day; increase/decrease in sleep.

Sources of stress

Participants were asked if the following factors were causing stress in their daily lives during the lockdown: staying at home all day, not going to school, not attending recreational

activities, distance learning, housework, not going to work, current family financial situation, distance from family members, distance from friends, family relationships, death in the family, illness in the family, loss of job by parent due to COVID-19.

Psychosocial factors

Participants were asked to rate how they would rate their level of stress; how would they rate their ability to handle stress; how much they have felt nervous, anxious, lonely, isolated, angry, fear, scared that they or a family member will get the COVID-19, uncertainty about the future, levels of worry about pandemic, sense of grief or loss, and how they would rate their overall mental health compared to before the lockdown and currently.

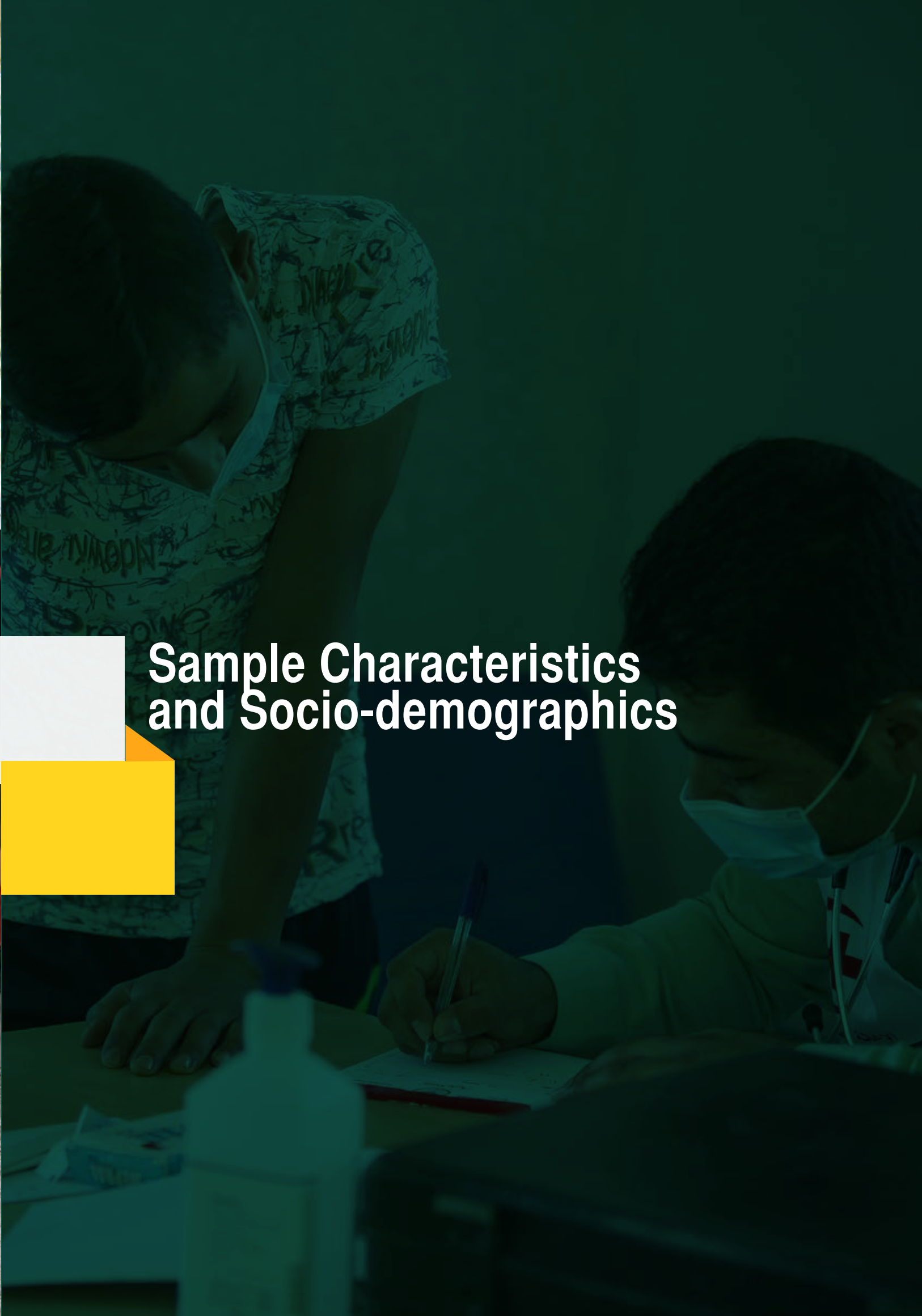
Mental health factors

Participants were assessed on their mental health well-being using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) which has 14 positively worded items with a 5-point Likert scoring scale for each item (with scores from 1 = ‘none of the time’ to 5 = ‘all of the time’). WEMWBS covers most aspects of mental well-being in the literature. It assesses positive affects including feelings of optimism, cheerfulness, and relaxation as well as autonomy, self-acceptance, environmental mastery, positive relations with others, personal growth and purpose in life. WEMWBS is scored by summing responses to each item, giving a minimum score of 14 and a maximum of 70 (13).

Limitations of the study

- As this was a study to assess the initial psychosocial and mental health impact of the COVID-19 pandemic, we had not obtained contact information from the adolescents and therefore cannot recruit the sample for a follow-up assessment to see the long-term impacts of the lockdown and pandemic on adolescent mental well-being.
- Sampling relied on having access to internet and electronic devices (in which sometimes the study team provided tablets to participants): this might have led to bias in participants belonging to a certain socioeconomic status and may limit the representation of vulnerable adolescents with no access to internet or electronic devices.
- Pre-existing mental health conditions were not assessed in the survey as well as utilization of mental health services before COVID-19, thus we cannot make any conclusions regarding the mental health impact among adolescents with a history of mental health problems.
- Lack of information on which and what type of psychosocial/mental health services were accessible during the pandemic/ lockdown.
- It should be taken into consideration, some of these findings could be overestimated, as the data was collected during a time there were school closures, recreational activities were banned, and lockdown restrictions were still being enforced in both Gaza and West Bank. Thus rates of psychological distress and poor mental well-being could decline if this survey was conducted when adolescents went back to their normal daily routines.
- Although the instrument used to assess mental well-being in the study has satisfactory psychometric properties, the instrument is a self-report questionnaire used for screening, rather than clinical diagnosis.
- The study design uses nonprobability and convenience sampling, despite the sample being proportionally selected among all governorates in the West Bank and Gaza. This sampling strategy makes it difficult to generalize these results.





Sample Characteristics and Socio-demographics

Recruitment and data collection

A total of **N=1829** adolescents between the ages **13-19 years** were virtually surveyed between January 19-March 1, 2021. Among the **1829** adolescents, **58.9%** were females and **41.1%** males. The mean age of participants was 16 years old. Data was collected from adolescents residing in all governments across the oPt in which **72.4%** were living in the West Bank and **27.6%** in the Gaza Strip. Among the sample, **42.8%** of respondents were from cities; **34.3%** from villages and **22.9%** from camps. **93.9%** of respondents were never married; **90.3%** were unemployed; and **37.1%** were high school students, **33.0%** middle school students and **18.3%** were enrolled in university.

Approximately 36% of respondents' father's had a bachelor's degree, 36.0% of respondents' mother's had a bachelor's degree, 31.1% of father's had full time jobs, and 63.8% of mother's were housewives. Among the total sample, 11.6% reported their family's monthly income was less than 1000 NIS, 36.6% between 1000 to 2999 NIS, 23.3% between 3000 and 4999 NIS, 8.9% more than 5000 NIS and 2.7% reported they had no family income at all.





Key Findings

COVID-19 infections and fears of contracting the virus among sample

- Among adolescents infected with COVID-19, 58.5% were residence of the West Bank and 41.5% were from the Gaza Strip.
- There were no gender differences for COVID-19 infections, with data showing almost equal number of cases among females and males.
- When asked about the fear of personally getting infected, 13.5% of study participants reported being scared all the time, while 23.6% expressed they were scared all the time of a family/household member contracting the virus.
- Those who have not been infected were more likely to exhibit feelings of extreme fear of a family member or themselves contracting the virus than those who already got infected (Figure 1).

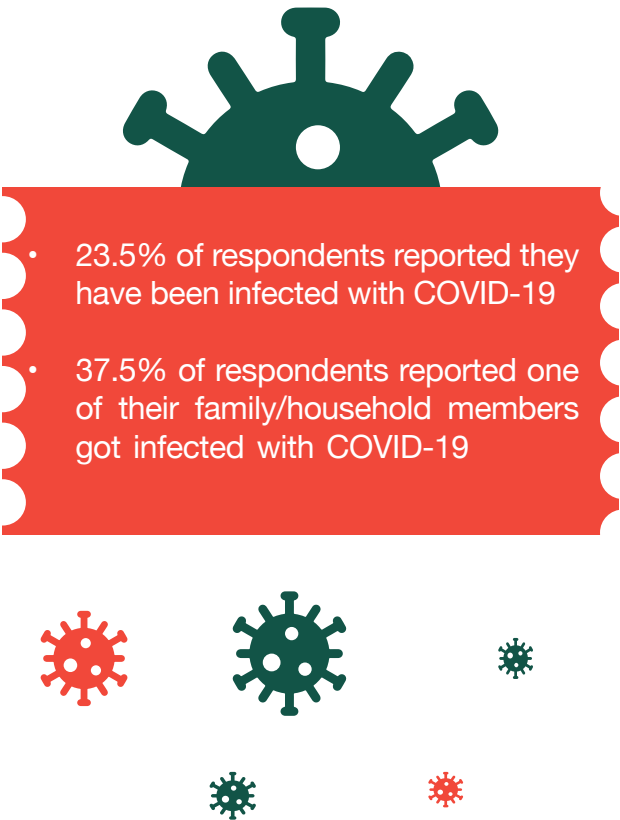
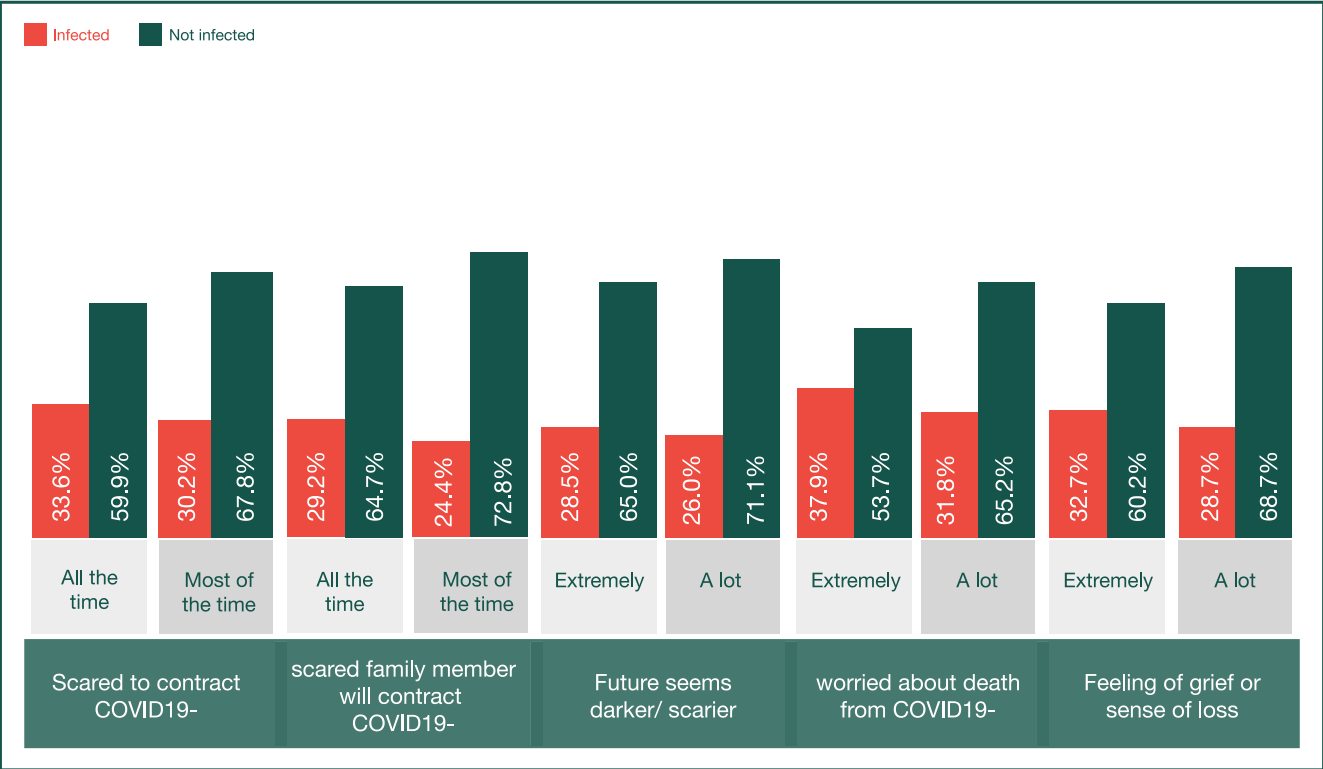


Figure 1. Fears and concerns, by infection status

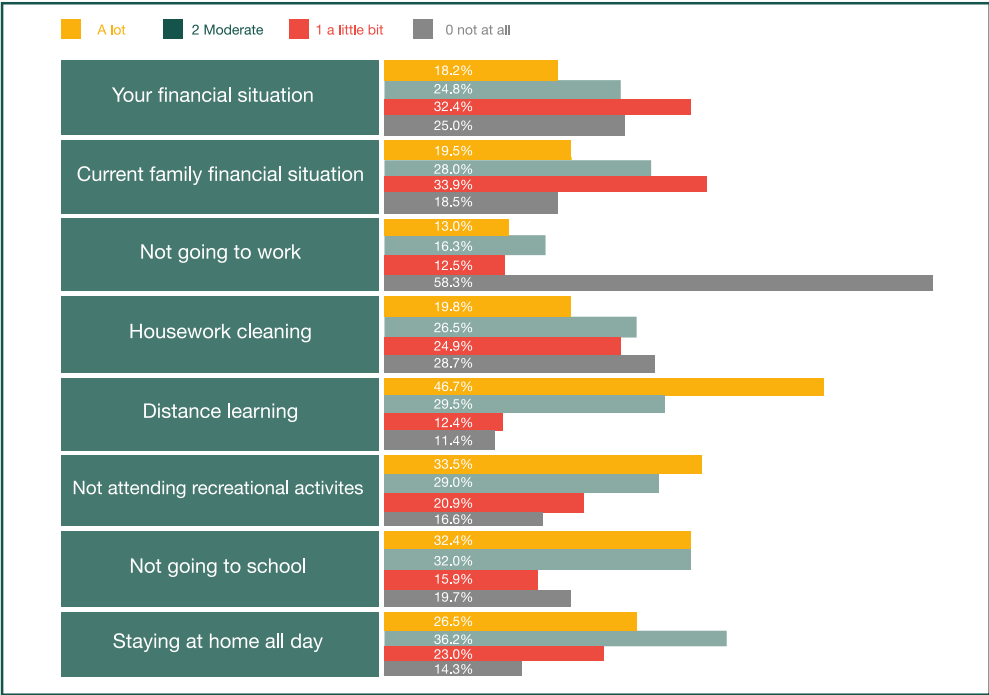


- Approximately, 50.6% felt that the future seems extremely/a lot scarier than before the COVID-19 pandemic.
- 28.9% felt extremely worried they may die from COVID-19; meanwhile, 24.2% did not worry at all.
- 40.2% had extreme feelings of grief or sense of loss during the COVID-19 pandemic and lockdown.
- Participants which were not infected from the virus were more likely to feel extremely scared about their future, worried about dying from COVID-19 and had extreme feelings of grief than those who already got infected.
- When asked how they feel about getting the COVID-19 vaccine, 16.2% of participants reported they definitely would get it. In contrast, 20.2% reported they definitely would not get the vaccine.

Main stressors and fears during the COVID-19 lockdown

- There were several commonly reported stressors during the lockdown. The main causes of a lot of stress for study participants were the following: 47.0% reported distance learning, 33.5% reported not attending recreational activities, 32.4% reported not going to school and 26.5% reported staying at home all day (Figure 2).
- Differences in gender roles were obvious in reported stressors. Females more frequently reported being under a lot of stress from not going to school, distance learning, housework/cleaning, distance from family and relatives, and not going to restaurants/cafes than males did. In contrast, a higher percentage of males reported staying at home all day, not going to school, distance learning, and housework were not stressors at all. Particularly males were more likely to report being under a lot of stress from not going to work than females.
- Differences in region were reported for almost all stressors. Study participants residing in the West Bank were more likely to report stressing a lot from all the reported causes of stress than those residing in Gaza.

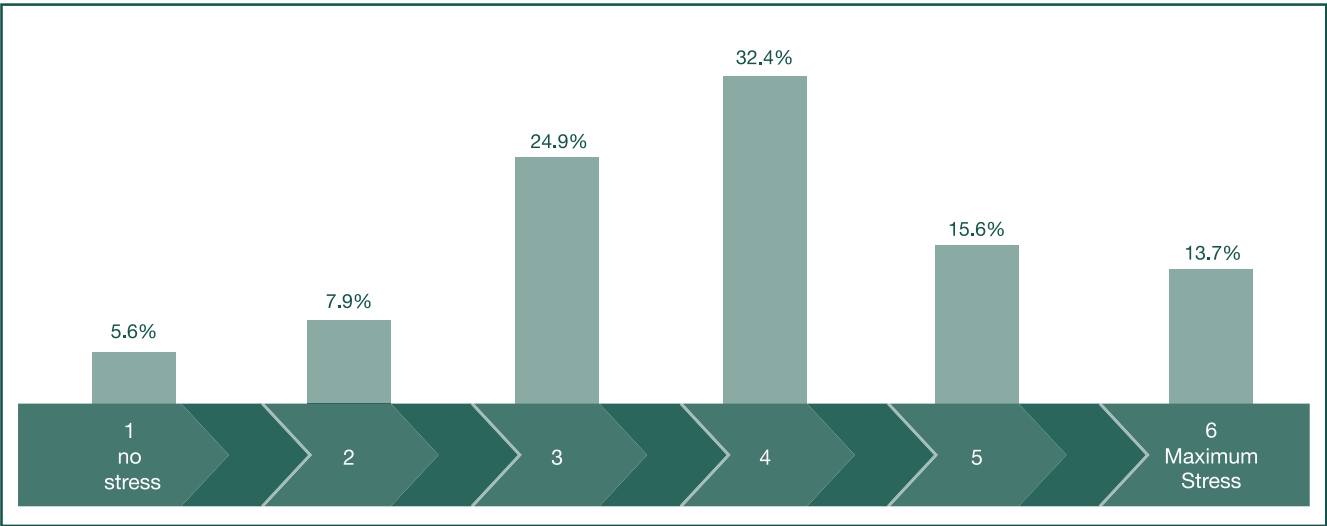
Figure 2. Reported stressors during the lockdown



Stress levels among sample

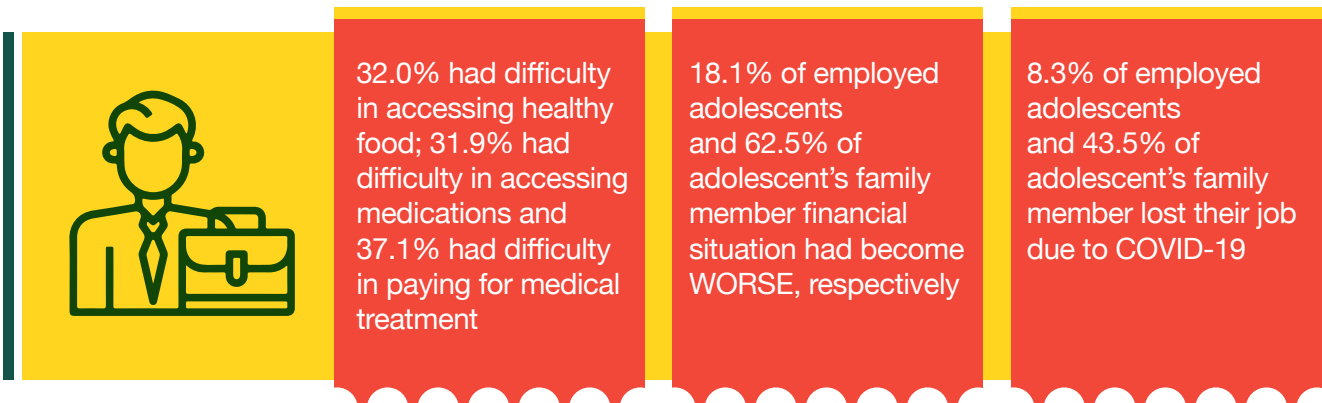
- When participants were asked to self-rate their current level of stress from 0-6, 6 being maximum stress and 0 being no stress, more than 60% reported a 4 or higher. Only 5.6% reported no stress at all on this scale (Figure 3).
- Females were more likely to report higher levels of stress. This could be due to the high percentage of females reporting a lot of stress from stressors such as not going to school, housework and cleaning and distance learning.

Figure 3. Current level of stress

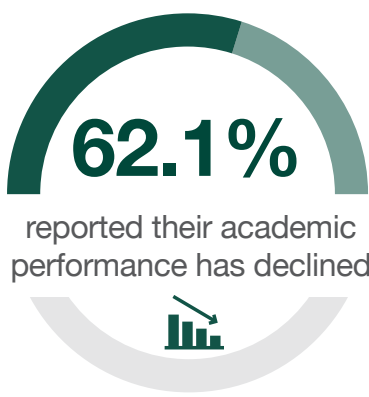
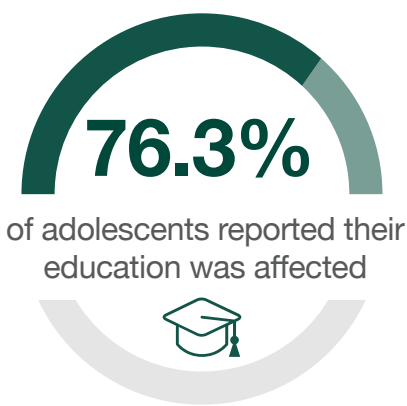


- High stress levels were more frequent among adolescents who have been infected with COVID-19 than those who have not been infected.
- Adolescents with high stress levels were also those who reported their quality of education was affected and there was a decline in their academic performance as a result of the pandemic and lockdown.

Change in financial situation as a result of the lockdown



Impact of lockdown on education




Females
were more likely to report a decline in academic performance than males



- Participants which reported a decline in their academic performance were those who also reported having difficulty accessing electronic devices for online learning.
- 40.5% reported they had difficulties in availability or access to electronic devices.

Change in social interactions and family relationships during lockdown

 **17.7%** reported a lot more tension between their parents, while 20.4% reported a lot more tension between themselves and their parents.

 **19.4%** reported their parents have been a lot more strict on them following lockdown restrictions.

 **21.7%** reported they were staying in touch with family and friends less compared to before the lockdown.

 **57.7%** reported they have been less socially connected compared to before the lockdown. On the other hand, 17.3% stated they were more socially connected.

 **26.7%** reported they have experienced some sort of cyberbullying during the lockdown.

Cyberbullying was more frequently reported among females than males

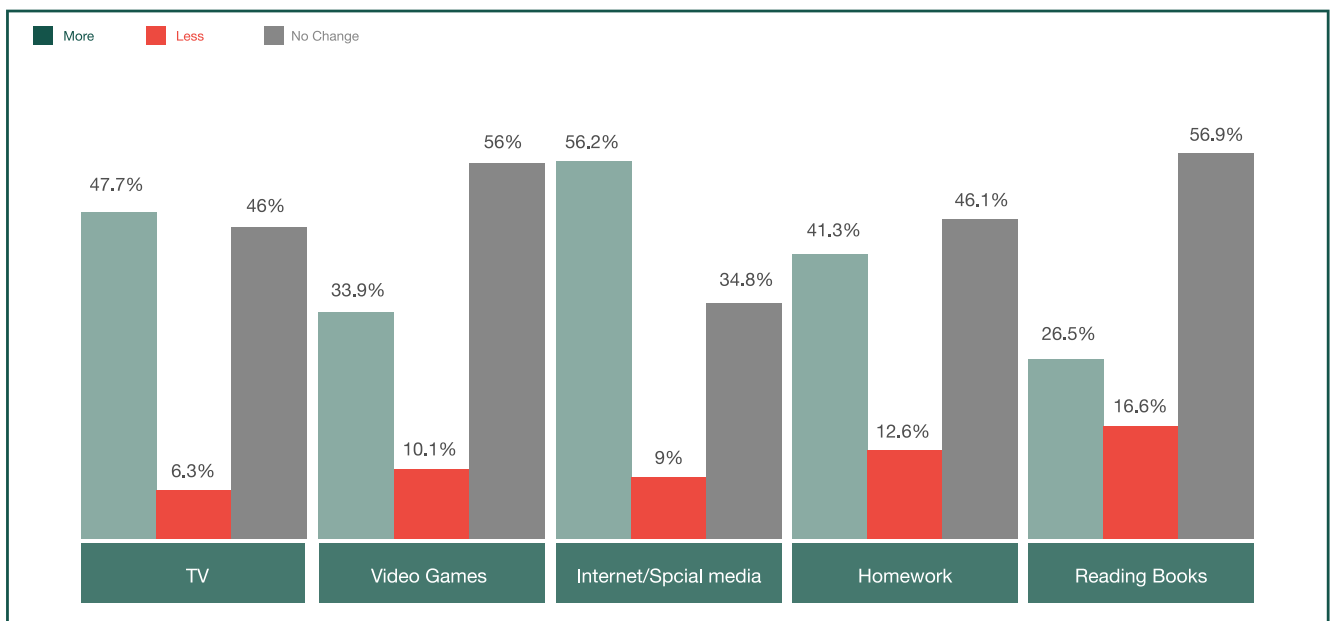
Among the sample, females were less likely to stay socially connected than males.

Reported changes in lifestyle behaviors during lockdown

<< i. Activities >>

- 40.0% reported they were less motivated to do activities they normally enjoy compared to before the lockdown; whereas 26.4% reported they were more motivated to do activities.
- 73.6% reported they have been spending more time on TV, computer and tablet compared to before the lockdown.

Figure 4. Change in time spent on activities compared to before the lockdown



- More than half of the sample reported spending more time on the internet and social media compared to before the lockdown, while approximately 48.0% reported spending more time on TV. In contrast 16.6% and 12.6% reported spending less time on reading books and homework, compared to before the lockdown.
- Participants which reported watching TV, using internet, doing homework, and reading books much less than before the lockdown, reported poorer mental well-being, increased levels of loneliness, and anxiousness than those who were conducting these activities much more than before.

ii. Physical activity

19.6% reported they have been conducting PA much less than before, while 11.1% reported they have been conducting PA much more than before the lockdown.

iii. Diet and nutrition

71.9% stated their food intake increased compared to before the lockdown.

42.1% reported they gained weight compared to before the lockdown, while 34.2% reported there has been no change in their weight and 17% reported they have lost weight.

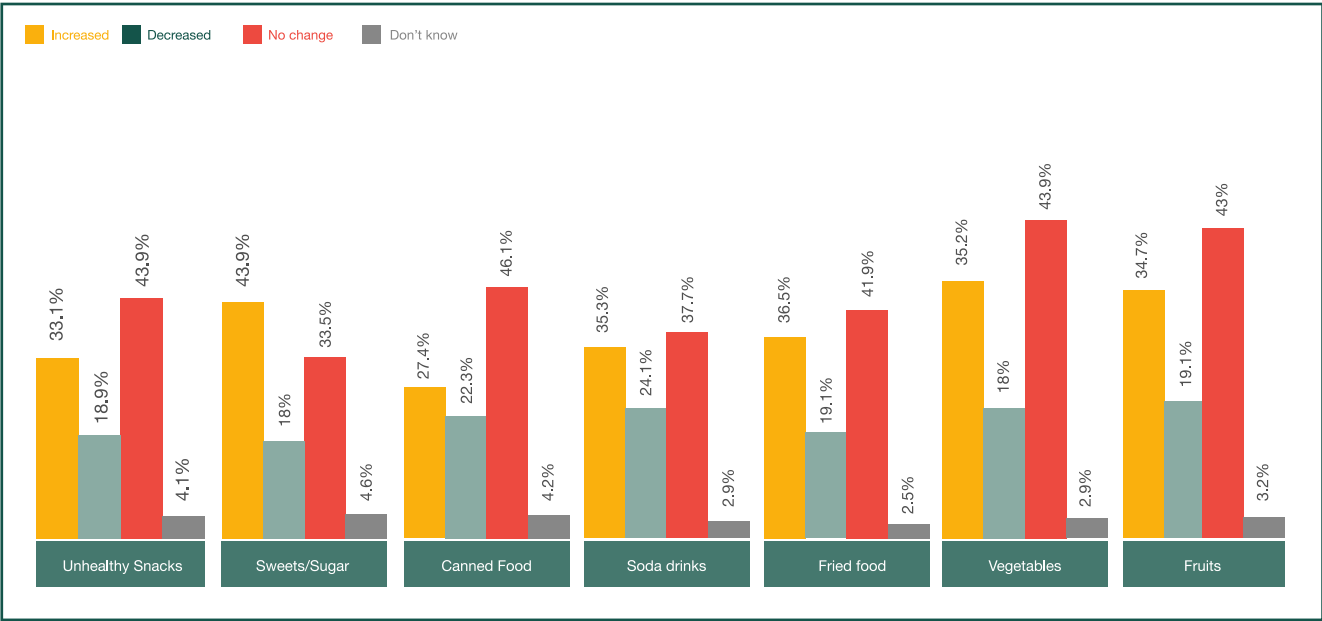
iv. Sleep patterns

42.3% rated their quality of sleep as good, 33.1% as fair and 19.3% as poor. There were no gender differences in quality of sleep between females and males.



- 1. FEMALES reported being less motivated to do activities compared to before the lockdown, while MALES reported being more motivated.
- 2. MALES reported conducting physical activity more than before the lockdown compared to females.
- 3. MALES reported weight gain during the lockdown more frequently compared to females.

Figure 5. Change in food intake compared to before the lockdown



- Overall, over 40% reported there was no change in their food intake including eating unhealthy snacks, canned food, fried food, vegetables, and fruits.
- Approximately 44.0% reported there was an increase in their intake of sugars, while 35.3% reported an increase in soda drinks and 33.1% in unhealthy snacks. Positively, over 35% reported there was an increase in their intake of fruits and vegetables.

Impact of lockdown on Psychosocial and Mental well-being

- Approximately 13.6% of participants reported loneliness all the time; 13.1% experienced feelings of anger all the time; while 38.2% of the sample exhibited feelings of nervousness most of the time and 34.8% exhibited anxiousness most of the time during the lockdown (Figure 6).
- Females were more likely to exhibit nervousness, anxiousness, loneliness, and anger all the time or most of the time during the lockdown than males.
- Participants living in Gaza experienced feelings of nervousness, anxiousness, loneliness, and anger more often than those living in the West Bank.
- Presenting feelings of nervousness, anxiousness, loneliness and anger most of the time was more frequent among adolescents living in camps than those living in cities and villages.

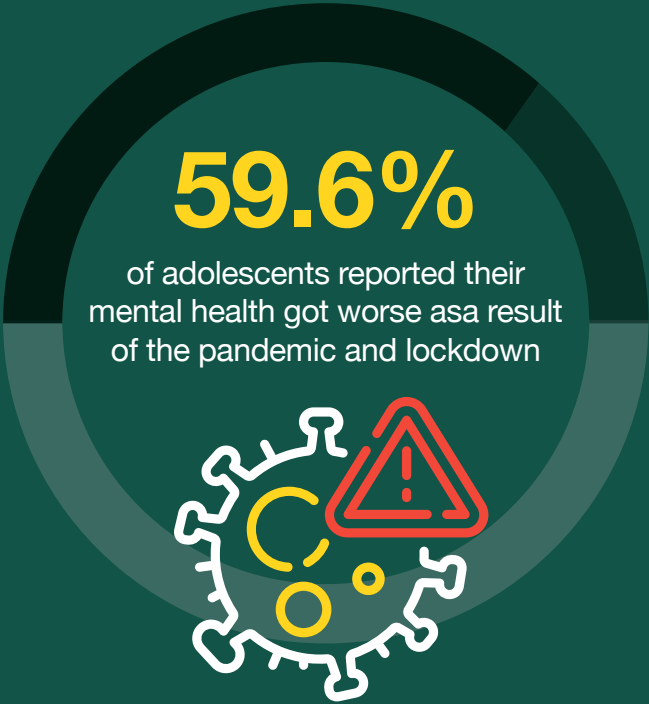
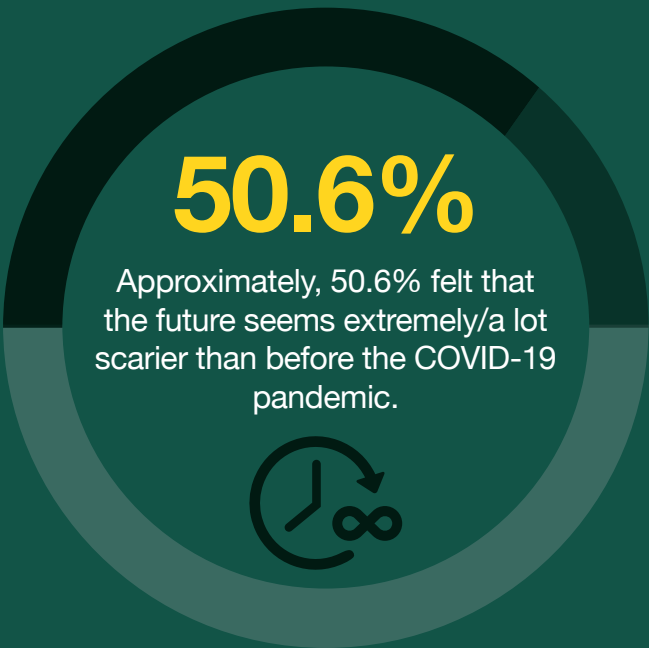
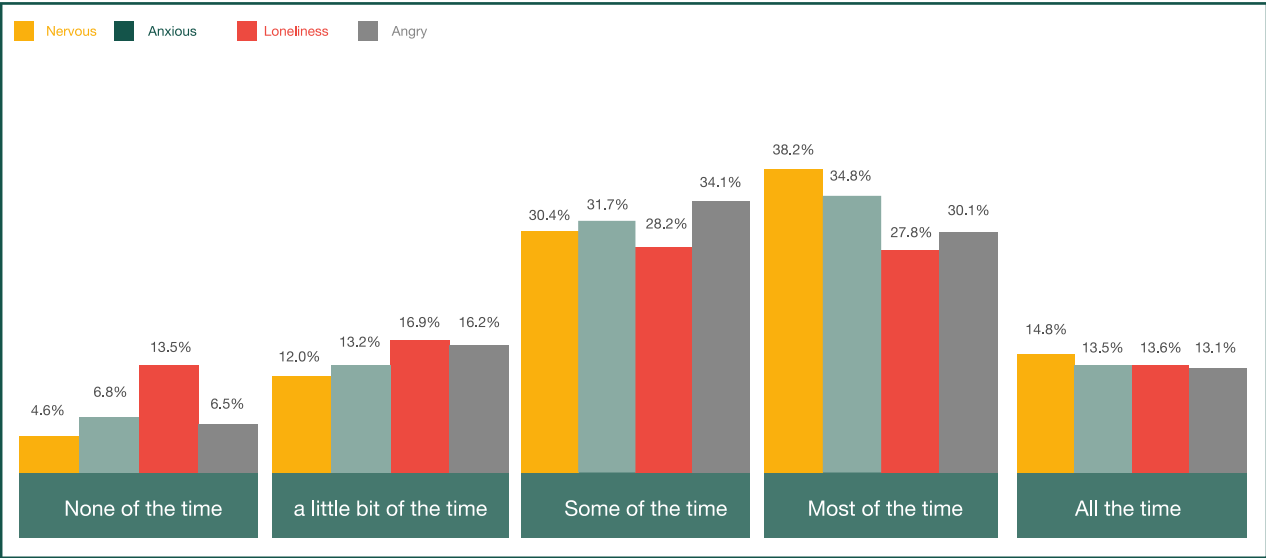


Figure 6. Reported feelings of nervousness, anxiousness, loneliness and anger



- **Mental well-being** was measured using the Warwick-Edinburgh Mental Well-being scale (WEMWBS). The cut points of the WEMWBS are categorized as a following: a score of 44 or less means very poor/poor mental well-being (for possible depression); scores of 45-59 represent average mental well-being and **scores of 60 or more represent high/good mental well-being**. Among the total sample, 60.5% reported poor-very poor mental well-being; 36.3% reported their mental well-being as average and 3.2% reported good-very good mental well-being. Gaza had a higher percentage of respondents' reporting poor-very poor mental well-being compared to the West Bank (82.4% vs 52.2%) (Figure 7). There were no differences in mental well-being status among males and females.

Factors associated with POOR-VERY POOR Mental Well-being

- Ages 16-19 years old (older adolescents)
- Living in camps
- Higher education level
- Parents had no education
- Parents had either lost their job due to COVID-19 or were unemployed
- Difficulty to access health food, medications and medical treatment during the COVID-19 lockdown
- Financial situation got worse after lockdown
- Contracting the COVID-19 virus or having a family member infected
- A lot of tension since the beginning of the lockdown between parents and between parents and study participants
- Lower levels of motivation
- Less socially connected
- Decline in academic performance and education affected
- Poor quality of sleep
- Feelings of nervousness, anxiousness, loneliness, and anger all the time during the pandemic compared to none of the time
- High levels of stress from family relationships, loss of a family member's job, family's financial situation, not working, and staying at home all day

Figure 7. Mental Well-being by Region

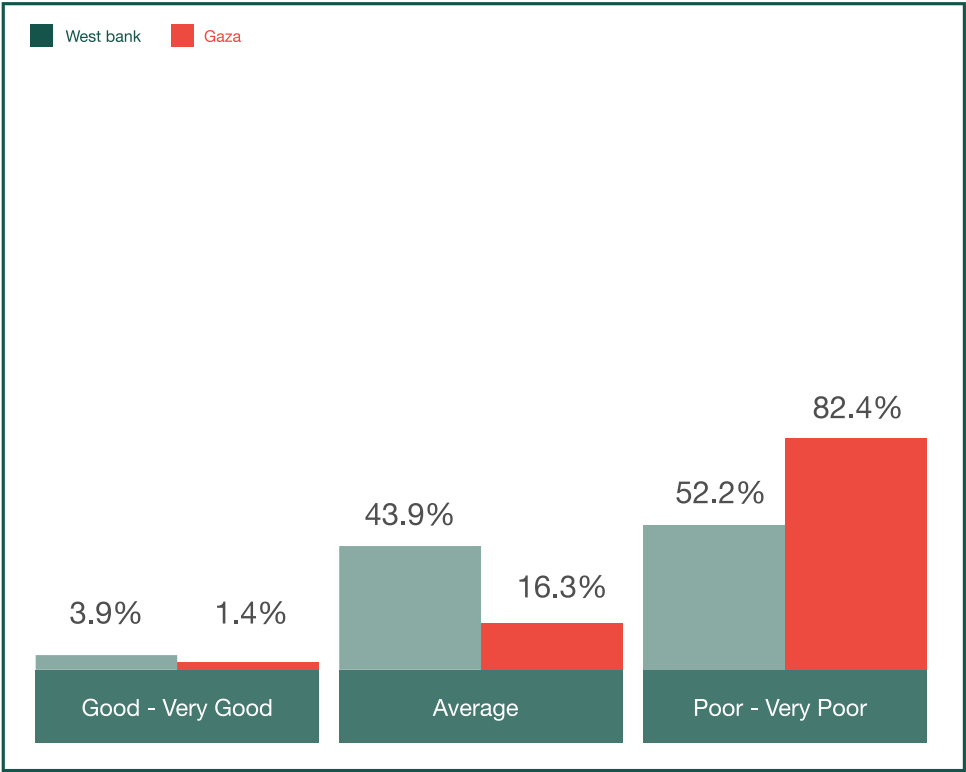
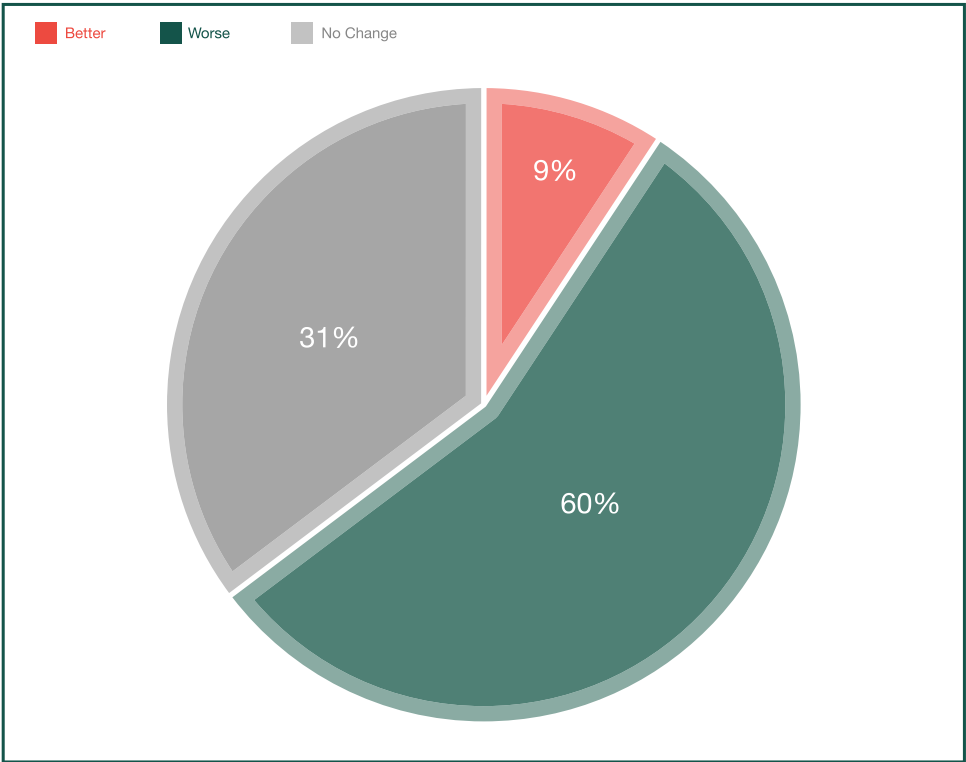
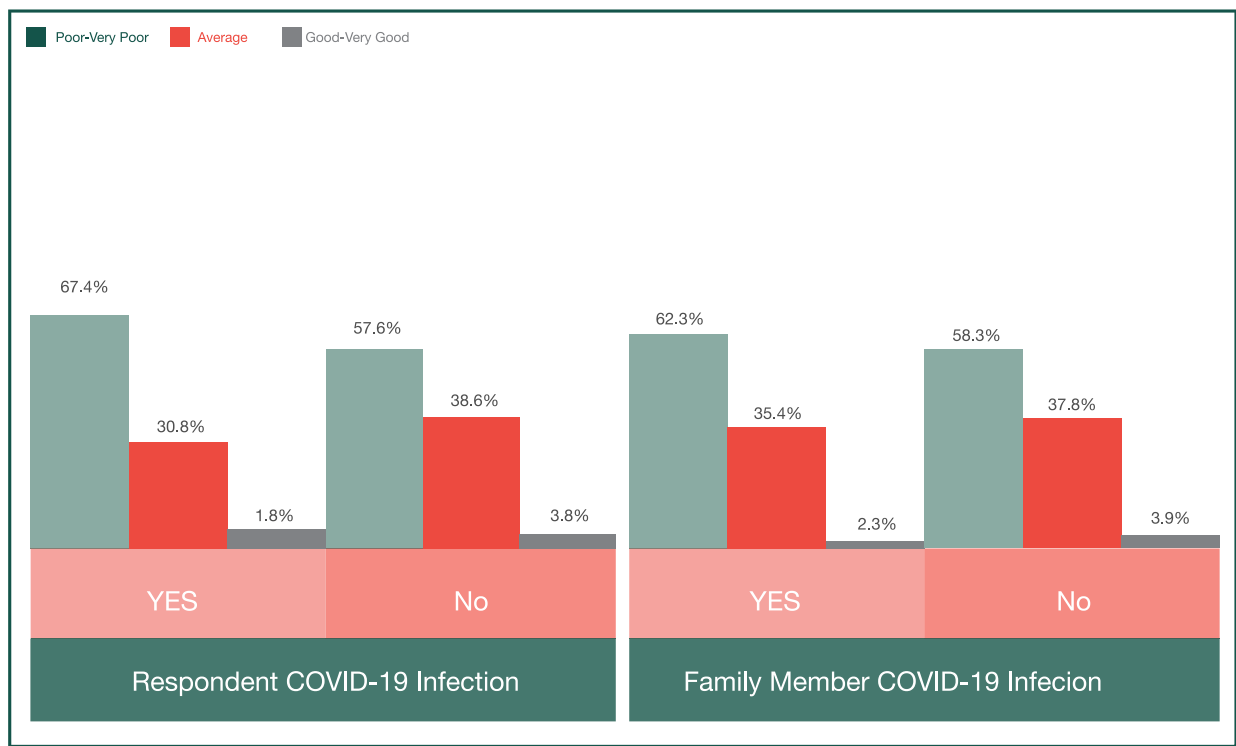


Figure 8. Self-rated change in mental health compared to before the lockdown



- When asked to self-rate their mental health compared to before the lockdown, 59.6% of participants reported it got worse, 30.7% reported there was no change, while only 9.4% reported it got better (Figure 8). Participants residing in the West Bank were more likely to report worse mental health than those in Gaza.
- There were no differences in gender for self-rated mental health, with an equal number of participants residing in Gaza and West Bank reporting their mental health got worse compared to before the lockdown.

Figure 9. Association between Mental Well-being and COVID-19 Infection status

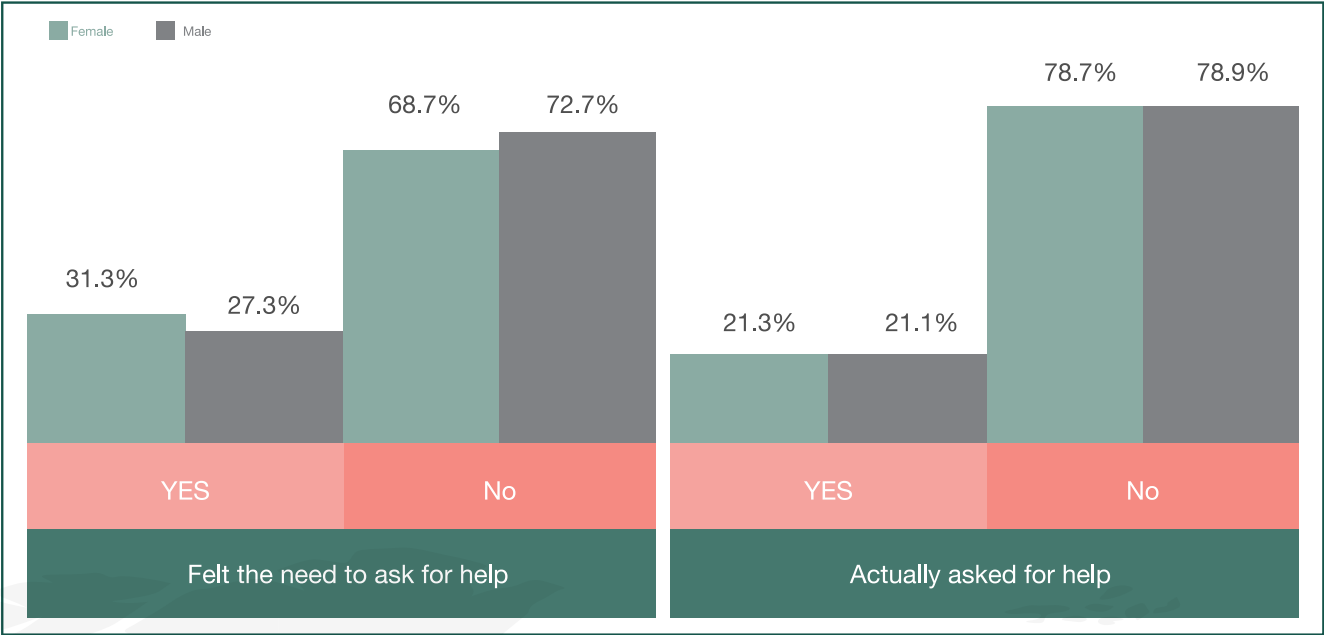


- Respondents which reported having a family member contract the virus or they themselves were infected were more likely to have poorer mental well-being compared to those who did not get infected or did not have a family member infected (Figure 9).

Physical, psychosocial and mental well-being needs during the lockdown

- 29.1% needed to ask someone for help about their physical health; 21.2% actually requested for help.
- 29.6% reported the need to ask someone for help about their mental health. However, among those who needed to ask someone for support, 21.2% actually did and 78.8% did not.
- 23.8% reported they had access to psychosocial/mental health services during the lockdown, while 45.9% reported they did not; and 30.2% reported they did not know.
- Gender differences revealed that females were more likely to feel the need to ask for mental health support than males; however there were no gender differences for asking for mental health support (Figure 10).

Figure 10. Participants which needed and actually asked for mental health support, by gender





Conclusions

- 01 This study was conducted on a relatively large sample of Palestinian adolescents, and has indicated the extent to which adolescents in the oPt have been affected by the COVID-19 pandemic, with over 60% exhibiting poor-very poor mental well-being.
- 02 The results of the survey administered to more than 1800 adolescents (aged 13 to 19 years) revealed significantly elevated rates of psychological distress, among this group, compared to before the pandemic and lockdown, and negative impacts on family's financial situations, family relationships, social connectedness, motivation and learning.
- 03 Poor mental well-being, COVID-19 related stressors, and high stress levels were more common among university students and older adolescents.
- 04 Overall, there were no gender differences in mental well-being rates.
- 05 Participants which contracted the COVID-19 infection or had a family/household member which was infected were more likely to have poor-very poor mental well-being.
- 06 Most respondents reported the pandemic had affected a parent's employment status, with 43.5% losing their jobs. This has led to increased psychological distress for many adolescents as well as poor mental well-being.
- 07 A significant proportion reported poor dietary habits, exercising less and sleeping difficulties as well as high levels of uncertainty about the future, all of which were associated with increased levels of stress as well as poor mental well-being.
- 08 Among the factors reportedly causing a lot of stress for adolescents (more often for females than males) were staying at home all day, not going to school, unable to attend recreational activities and distance learning.
- 09 Participants reported feelings of loneliness, which were associated with increased psychological distress and a reduced sense of well-being. Given the negative impact a lack of social connection has on social and cognitive development and how loneliness increases the risk of developing depression and other mental health problems, interventions need to focus on improving social connections, especially in areas where lockdown/containment measures will be implemented for prolonged periods.
- 10 In light of these findings, it is important to state that fear, worry, and stress are normal responses of the COVID-19 outbreak and at times when we are faced with uncertainty or the unknown. Additionally it is only normal that adolescents reported poor mental well-being as not only are they facing the fear of contracting the virus in a pandemic such as COVID-19 but they are also facing the significant changes to their daily lives as school closures, home schooling, movement restriction, and lack of physical contact with friends and family members.
- 11 We cannot currently conclude that these findings will be long lasting effects on

the well-being of these adolescents however, the findings highlight the need for longitudinal research to assess the ongoing impacts of the pandemic on adolescents and the need for interventions to support young people through this disruptive time.

12

Our findings also bring to light that the investment in psychosocial and mental health support and services over the past few years has been paying off, as our results reveal approximately 21% of adolescents sought support and advice on their mental health when they needed to. This reflects that these adolescents have a sense of awareness to these issues, which was lacking many years ago.

13

To our knowledge, this is the largest study assessing mental well-being in adolescents during the COVID-19 pandemic in the oPt, in which our findings were similar to several studies conducted in other countries which reported high rates of poor mental health among adolescents as a result of the pandemic.

14

These findings have important implications for prevention, psychosocial intervention and future research. Importantly, mental health services for adolescents should be made available and accessible to support their psychosocial and mental health needs.

15

There is an urgent need to develop psychoeducation campaign, raising awareness of adolescents on the importance of their mental health and to seek help, either in school or university settings as well as in health facilities.







Recommendations

The impact of the COVID-19 pandemic has already had profound consequences on adolescents mental health. Promoting psychological and mental well-being and protecting adolescents from adverse experiences and risk factors which may impact their potential to thrive are not only critical for their well-being during adolescence but also for their physical and mental health in adulthood. Globally, an estimated 10-20% of all adolescents experience mental health conditions, yet these remain underdiagnosed and untreated. This study highlights the need to find rapid and accessible ways to support adolescent mental health during times of crises, such as COVID-19. Implementation of recommended actions below by policy makers will help minimize and address the consequences this pandemic has imposed on this vulnerable population.

- It is imperative to plan strategies to enhance adolescent's access to mental health services during and after the current crisis. For this, a multisectoral approach and collaborative network which includes various stakeholders is required. Recommendations for ensuring mental well-being of adolescents during the COVID-19 pandemic and lockdown and the role of parents, teachers, pediatricians, the health system and policy makers must be discussed.
- Inclusion of psychosocial and mental health consideration in the COVID-19 emergency response plan in the oPt.
- Increase awareness among adolescents on the importance of their mental well-being and to seek support if needed.
- Integrate routine mental health services into primary healthcare and specifically train general practitioners on child and adolescent mental health screening, treatment and referral if needed specialized mental health services.
- Strengthen psychosocial and mental health programs at schools with a special focus on the adolescent's risky behaviors.
 - Teachers have a role to play in the promotion of mental health among students. They can discuss what is well-being and how it is important for students. They can assist in teaching simple exercises, including deep breathing, muscle relaxation, and distraction.
- Promote healthy lifestyles (eg. diet, nutrition, physical activity, avoiding risky behaviors, no tobacco and mental health) for adolescents.
- Promote ONLINE exercise activities and recreational activities, to try and avoid sedentary lifestyles in order to promote good mental well-being. More non-gadget related indoor activities and games are to be encouraged.
- Parents should help adolescents stay socially connected during lockdown
 - Encourage adolescents to reach out to friends and family via phone, video chats, social media, or even via video games.
- Parents should try to reduce excessive internet use among adolescents
 - Internet surfing related to COVID-19 should be avoided as it results in anxiety. Similarly, excessive and irresponsible use of social media or internet gaming should be cautioned against. Negotiations with adolescents to limit their time and internet-based activities are recommended.
- Strengthen community mental health services to respond to the needs of the community, in particular the needs of adolescents.
- Provide emergency support for those in need of psychosocial and mental health assistance during current pandemic.
 - Community services which strengthen social cohesion, help with coping mechanisms, reduce loneliness and promote healthy mental well-being. Interventions should be implemented and focused on improving social connections, especially in areas where lockdown/containment measures will be implemented for prolonged periods.
 - Access to remote support needs to be scaled up for any mental health need. When people are forced to stay at home, support may be remote (e.g. through telephone, text or video), depending on the context and the person's needs.
- Strengthen mental health services to respond to the needs of people and particularly adolescents in the recovery period/post COVID-19 pandemic.
- Further research should be conducted on the longterm effects of the pandemic on psychosocial and mental health of adolescents.



References

1. Early childhood development and COVID-19. UNICEF. 2020.
2. Su T-P, Lien T-C, Yang C-Y, Su YL, Wang J-H, Tsai S-L, et al. Prevalence of psychiatric morbidity and psychological adaptation of the nurses in a structured SARS caring unit during outbreak: A prospective and periodic assessment study in Taiwan. *Journal of Psychiatric Research*. 2007;41(1):119-30.
3. Duan L, Shao X, Wang Y, Huang Y, Miao J, Yang X, et al. An investigation of mental health status of children and adolescents in china during the outbreak of COVID-19. *J Affect Disord*. 2020;275:112-8.
4. Zhou S-J, Zhang L-G, Wang L-L, Guo Z-C, Wang J-Q, Chen J-C, et al. Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European Child & Adolescent Psychiatry*. 2020;29(6):749-58.
5. Yeasmin S, Banik R, Hossain S, Hossain MN, Mahumud R, Salma N, et al. Impact of COVID-19 pandemic on the mental health of children in Bangladesh: A cross-sectional study. *Child Youth Serv Rev*. 2020;117:105277.
6. Loades ME, Chatburn E, Higson-Sweeney N, Reynolds S, Shafran R, Brigden A, et al. Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19. *J Am Acad Child Adolesc Psychiatry*. 2020;59(11):1218-39.e3.
7. Impact of the Covid-19 Pandemic on Early Childhood Care and Education. *Early Child Educ J*. 2020:1-4.
8. Orben A, Tomova L, Blakemore S-J. The effects of social deprivation on adolescent development and mental health. *The Lancet Child & Adolescent Health*. 2020;4(8):634-40.
9. Yoshikawa H, Wuermli AJ, Britto PR, Dreyer B, Leckman JF, Lye SJ, et al. Effects of the Global Coronavirus Disease-2019 Pandemic on Early Childhood Development: Short- and Long-Term Risks and Mitigating Program and Policy Actions. *J Pediatr*. 2020;223:188-93.
10. OCHA. Humanitarian needs: overview in the Occupied Palestinian Territories 2019.
11. Reliefweb. In the West Bank, the COVID-19 Lock-down is Exacerbating Mental Health Crisis 2020. <https://reliefweb.int/report/occupied-palestinian-territory/west-bank-covid-19-lockdown-exacerbating-mental-health-crisis>. 2020.
12. Allabadi H, Daibes J, Aghabekian V, Khader A, Khammash U. Impact of COVID-19 lockdown on dietary and lifestyle behaviours among adolescents in Palestine. *Dynamics of Human Health* 2020;7(2).
13. Tennant R, Hiller L, Fishwick R, Platt S, Joseph S, Weich S, et al. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcomes*. 2007;5(1):63.