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COVID-19 knowledge, attitudes, and practices among young people in Port Said and Souhag, Egypt: A gender perspective

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RESEARCH BRIEF

COVID-19 knowledge, attitudes, and practices among young people in Port Said and Souhag, Egypt: A gender perspective

Highlights

The Evidence Project, led by the Population Council and funded by the U. S. Agency for International Development (USAID), conducted a COVID-19 knowledge, attitudes, and practices survey with 241 young men and women aged 18–34 in Egypt who had been receiving COVID-19 information via WhatsApp. Results showed:

- Knowledge of some behaviors that could prevent COVID-19 transmission was high among both young men and young women, while knowledge of transmission modes was fairly low among both genders.
- There were differences by gender in knowledge, attitudes, and behaviors related to COVID-19.
- Young women correctly named an average of 5.7 COVID-19 symptoms out of 13, while young men reported an average of 4.9 symptoms.
- More young men than young women perceived themselves to be at risk of COVID-19 infection.
- More young women than men reported that they had changed their behaviors to reduce the risk of COVID-19 infection since the onset of the pandemic.

COVID-19: GLOBALLY AND IN EGYPT

By July 2020ⁱ, 17,106,007 people had acquired COVID-19 and the disease had claimed 668,910 lives worldwide (WHO 2020). Thus far, COVID-19 has a higher mortality rate in men compared to women (Jin et al. 2020), and men have been infected at twice the rate of women worldwide since the outbreak began in December 2019 (Chang 2020). In addition, men have almost twice the number of intensive care unit admissions than women across 18 countries (Global Health 50/50 2021). Researchers have attributed the gender differences in vulnerability to COVID-19 infection, morbidity, and mortality to genetic and immunological differences and preexisting conditions (Galasso et al. 2020). This, however, fails to account for the contribution of behavioral factors and perceptions of risk across genders. There are gender disparities in access to information, behaviors, and adherence to protective measures (Schwab et al. 2019), which could lead to differences in COVID-19 infection, and therefore morbidity and mortality, by gender. Men have been found to account for more cases in countries with higher gender inequality (Tadiri et al. 2020).

The first confirmed positive case of COVID-19 was recorded in Egypt on 14 February 2020. Through 31 July 2020, when the study was conducted, Egypt had recorded 94,078 confirmed cases and 4,805 deaths (Coronavirus Update, Egypt 2020). However, data disaggregated by gender are not available. Given the known gender differences in the global context, this study describes the differences in knowledge, attitudes, and practices related to COVID-19 of young men and women in Port Said and Souhag, Egypt.

SURVEY METHODOLOGY

From 10 July to 25 2020, the Evidence Project/Population Council conducted a semi-structured phone survey with young men and young womenⁱⁱ between the ages of 18 and 34 in Port Said and Souhag, Egypt.

Respondents are participants from a larger project that aimed to increase demand for family planning/reproductive health (FP/RH) services among married and unmarried young people in Port Said and Souhag through a series of awareness-raising activities (for details, see Abdel-Tawab et al. 2020). Souhag participants were young men and women seeking employment who attended an



integrated livelihood and FP/RH training. Participants in Port Said worked in factories where the awareness-raising intervention was conducted. After the onset of COVID-19, WhatsApp groups, established as part of the larger study for trained male and female peer educators to share information, were used to share COVID-19 messaging. Each WhatsApp group was composed of 20–25 young men and young women and one peer educator of the same gender. The peer educator sent two messages per week on COVID-19, including prevention, symptoms, and treatment, as well as FP/RH topics related to COVID-19. The WhatsApp groups allowed for one-way messaging, in which all members only received messages from the peer educator but could privately respond with questions to the peer educator. From this project population, a subset of 120 young men and 121 young women were included in the study.

Peer educators and partner nongovernmental organizations from the original study prepared a list of project participants who had consented to share their phone numbers with the research team. Participants were contacted and their verbal informed consent was obtained to participate in the COVID-19 survey. Ethical approval was received from the Population Council Institutional Review Board.

The interviews were conducted over the phone by trained male and female data collectors. The phone interviews lasted approximately 20 minutes and included questions about COVID-19 knowledge, attitudes, and practices. Bivariate analyses were conducted using chi-squared tests and t-tests to measure statistical significance in study outcomes by gender.

ⁱThis study was conducted in July 2020.

ⁱⁱEgypt's Ministry of Youth and Sport defines youth as those aged 18–35.

RESULTS

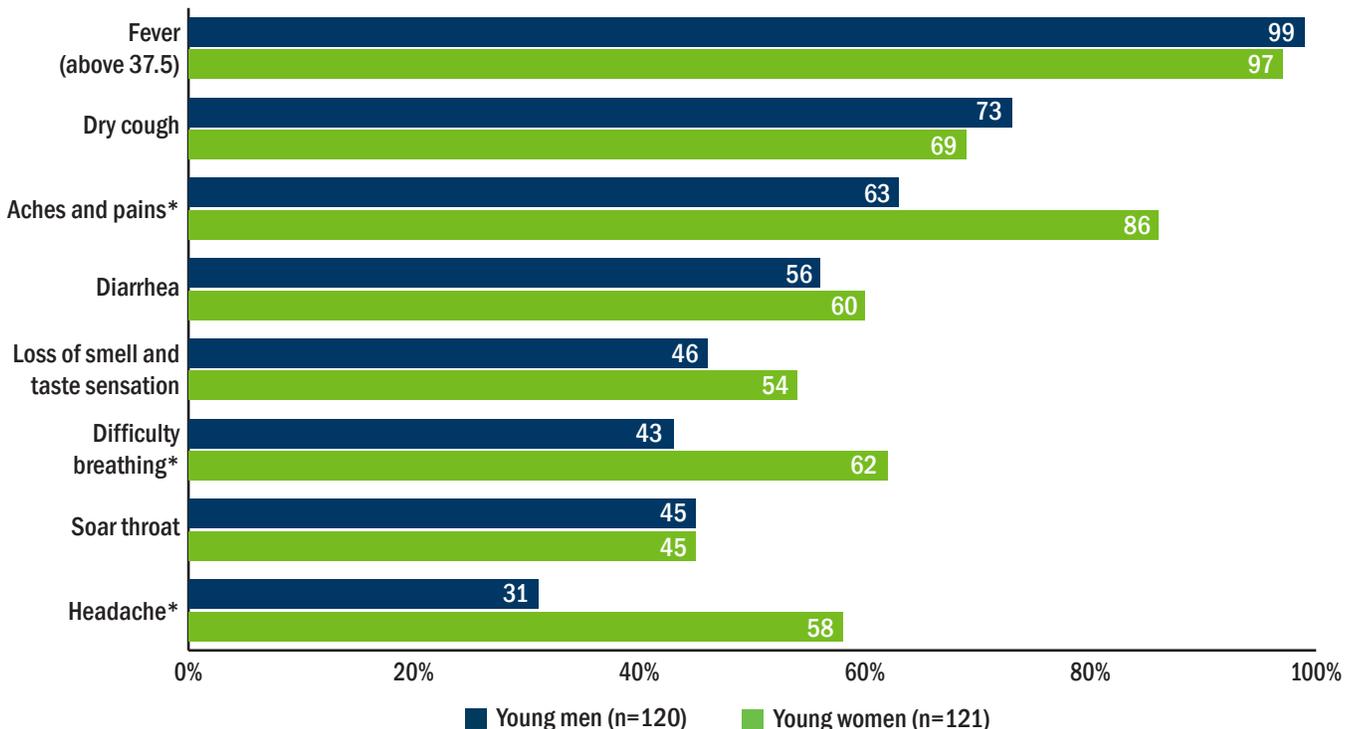
KNOWLEDGE OF COVID-19 TRANSMISSION MODES, SYMPTOMS, AND PREVENTIVE MEASURES

- Just over half of young men and young women correctly reported that person-to-person contact was the main mode of transmission of COVID-19. More young men reported this transmission mode than young women (61% and 55%, respectively), though the difference was not statistically significant. Young women were more likely to mention that the virus can spread by touching a contaminated surface or object (45% of young women compared to 34% of young men), though this difference was not statistically significant.
- With regards to knowledge of COVID-19 symptoms, young women spontaneously and correctly named an average of 5.7 symptoms out of 13 while young men correctly named an average of 4.9 symptoms ($p < 0.001$).
- Fever was correctly identified by both young men and young women as a key symptom, while just under three-quarters of young men and women named dry cough as a symptom. Headache, generalized pain, and

difficulty breathing were less likely to be mentioned by young men than young women (Figure 1). Other correct symptoms that were reported included chest pain, conjunctivitis, skin rash or discoloring of fingers or toes, vomiting, and nasal discharge.

- The majority of respondents correctly and spontaneously named the following three behaviors as preventive measures against COVID-19 infection: wearing masks (99% of young men and 93% of young women), using hand sanitizer regularly (91% young men and 91% young women) and washing hands regularly (79% of young men and 90% of young women).
- Although the majority of respondents were aware of key prevention behaviors, young women were significantly more likely to report awareness of the following behaviors compared to young men: avoiding large groups of people (77% versus 52%, respectively, $p < 0.05$), not shaking hands (55% versus 26%, $p < 0.05$), and staying at home unless urgent (47% versus 20%, $p < 0.05$).
- Nearly all respondents (93% of young men and 97% young women) knew where to go to get tested for COVID-19 if they or a family member had suspected symptoms.

FIGURE 1 KNOWLEDGE OF COVID-19 SYMPTOMS BY GENDER (MULTIPLE RESPONSES POSSIBLE)



* $p < 0.05$

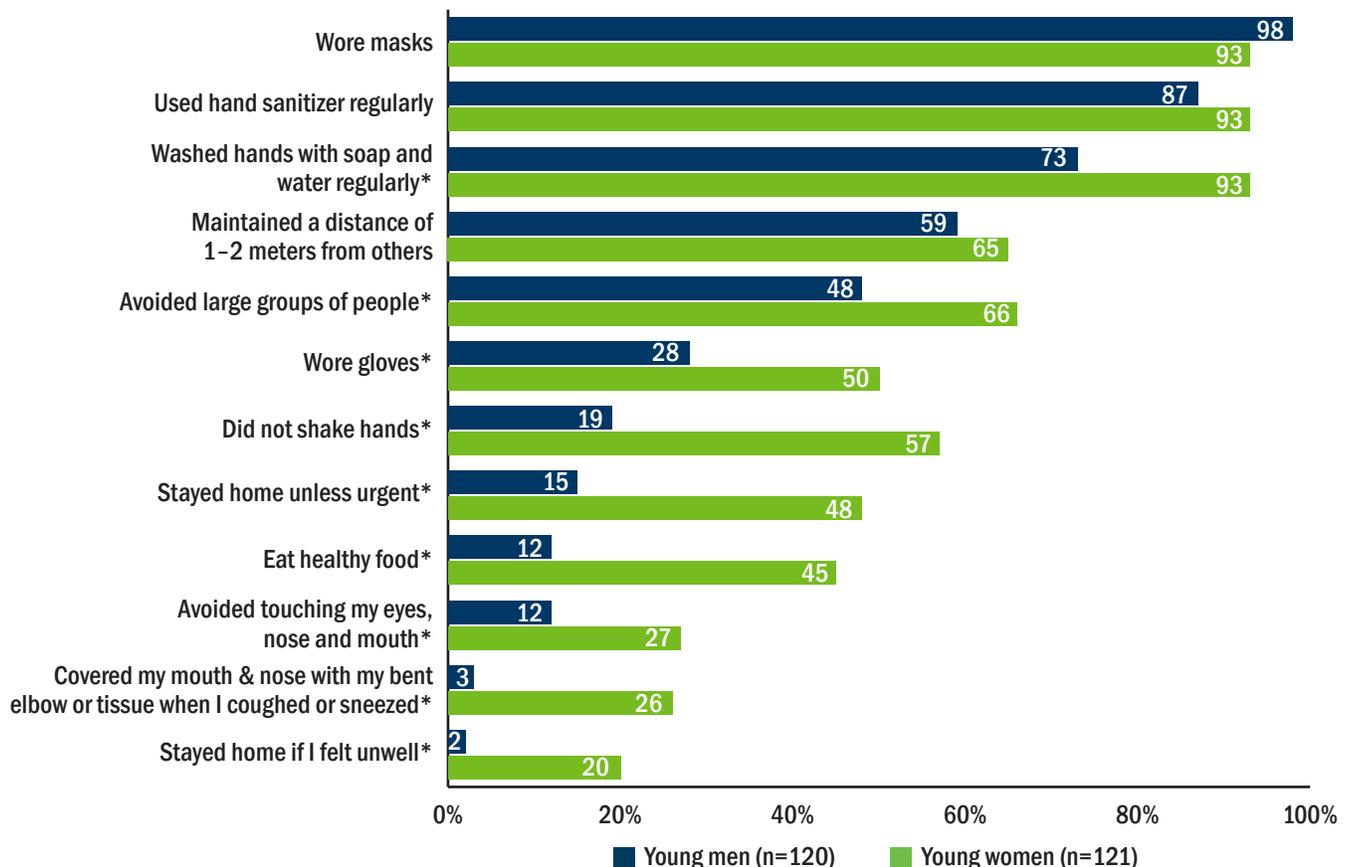
RISK PERCEPTIONS AND ADHERENCE TO PREVENTIVE MEASURES

- Young men (89%) were more likely to report that they believed they were personally at risk of acquiring COVID-19 compared to young women (70%, $p < 0.05$).
- The average number of behavioral changes that young women made to protect themselves against COVID-19 was 6.8, compared to 4.5 for young men ($p < 0.001$).
- Over 90% of young men and young women reported that they wore masks to prevent COVID-19 infection, and most used hand sanitizer regularly (Figure 2).
- Just over half (57%) of young women said they were no longer shaking hands, compared to only 19% of young men ($p < 0.05$), and 93% of women compared to 73% of young men mentioned washing hands regularly with soap and water ($p < 0.05$) (Figure 2).
- While slightly less than half of women reported that they stayed home unless it was urgent (48%), just 15% of men reported this behavior change ($p < 0.05$). Even fewer reported staying home if they felt unwell (20% of young women and 2% of young men, $p < 0.05$).

CONCLUSION

The results showed that young men and women who had been reached with COVID-19 messaging through WhatsApp had high levels of knowledge of some aspects about COVID-19, such as ways to reduce risk of transmission, certain symptoms of COVID-19, and where to go to get tested. Other aspects of knowledge, such as transmission modes of COVID-19, as well as certain symptoms and preventive measures, were relatively low. There were also clear gender differences in participants' knowledge, attitudes, and practices regarding COVID-19. Young women not only had greater knowledge of the symptoms of COVID-19, but they were more likely to report adhering to protective measures, with lower perceived risk of infection. Young men were more likely to believe they were at risk of becoming infected with COVID-19. These results largely mirror global studies that have shown that men are at higher risk of exposure to COVID-19 than women, and they are less likely to adopt protective behaviors (Umamaheswar & Tan 2020).

FIGURE 2 CHANGES IN BEHAVIORS TO REDUCE THE RISK OF COVID-19 TRANSMISSION (MULTIPLE RESPONSES WERE ALLOWED)



Social and cultural norms may play a role in the above differences, as men tend to be income generators and hence spend more time outside the house and perceive themselves at higher risk. The fact that young women spend more time inside the house may have allowed them to receive information on COVID-19 symptoms and prevention from traditional media sources, such as television and radio, reflected in their higher knowledge and adherence to protective measures. Research has shown that gender norms may also encourage men to engage in risky behaviors (e.g., drinking and driving and engaging in unprotected sex), and hence such norms may decrease the likelihood of young men's adherence to protective behaviors against COVID-19 (Bener et al. 2009; Ehrhardt et al. 2009; Granié et al. 2020).

RECOMMENDATIONS

- Campaigns for young men and women to increase knowledge, attitudes, and practices about COVID-19 in Egypt may consider focusing on information such as transmission modes of COVID-19 and key symptoms, in addition to fever, that might indicate a COVID-19 infection. They should also incorporate messages advising people to stay home if feeling unwell, cover their mouth and nose during coughing or sneezing, and avoid touching their face, nose, and mouth, as these are measures that should be taken to prevent infection. Also, the government can consider targeted campaigns to young men to increase their preventive behaviors such as avoiding shaking hands, staying home unless urgent, avoiding large groups, and eating healthy food.
- Gender and socioeconomic differences in access to information should be taken into consideration in designing communication strategies to reach both men and women, regardless of education and urban/rural residence, with relevant information. For example, in Egypt, 52.4% of young men versus 41.3% of young women use the internet (Statista 2019), suggesting that online messaging may be more appropriate for reaching young men than young women with information about COVID-19.
- The Ministry of Health and Population should provide age- and gender-disaggregated statistics on COVID-19 morbidity and mortality for a better understanding of the links between the above gender differences in knowledge, attitudes, and behaviors and health outcomes.
- More research is needed to understand young men's and young women's health information seeking behaviors. To provide targeted, accurate information on COVID-19, it would be helpful to identify media channels that young men and women are most likely to use for seeking health information and to examine social media use dynamics across genders.

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The Evidence Project uses implementation science—the strategic generation, translation, and use of evidence—to strengthen and scale up family planning and reproductive health programs to reduce unintended pregnancies worldwide. The Evidence Project is led by the Population Council.

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